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BUILDING.

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CENTRAL HOUSING BOARD.

Memorandum No. 1.

(Published by authority.)

The report of the Housing Committee bears strong evidence of the necessity for a serious attempt to deal with the housing question on broad and permanent lines.

The late war has been responsible for almost a world-wide shortage of houses. South Africa, in common with other countries, is suffering from the shortage, and this fact has also emphasised the necessity of not only dealing with the shortage, but with housing reform generally. The task here is distinctly more complicated than that obtaining in European countries, owing to the mixed communities of European and non-European population and their varying standards of living which, without uniformity, prevail throughout the country.

As in Europe, the urgency of the question is forced upon the country at a time when not only has the cost of building been greatly enhanced, but the supply of skilled labour and material falls far short of the demand.

Under these circumstances the Central Government decided that it was its duty to assist and co-ordinate the efforts of Local Authorities to relieve the present situation, and to this end the Housing Act

No. 35 of 1920 has been placed on the Statute Book.

Broadly speaking, there are two aspects of the problem:—

(1) The general shortage of houses arising from the cessation of building during the late war.

This shortage applies to all classes of the population and has greatly accentuated that overcrowding which previously only existed to any great extent amongst the poorer classes.

(2) The reform of housing conditions of the poorer classes.

This is a question which has not arisen merely during the late war but its necessity and importance have been more vividly brought to light partly as a result of war conditions, and partly by the late influenza epidemic. It varies in urgency and complexity in the various provinces and towns and affects principally:—

The poor white, coloured and native population in the Cape.

The poor white, Asiatic and native in the Transvaal.

The poor white and native in the Orange Free State.

The Asiatic and native in Natal.

The permanent betterment of the conditions involves such questions as:—

The gradual improvement of the varied standards of living of the mixed population.

The ability to pay economic rents on desirable standards of accommodation.

The defining of residential areas suitable to the population of the community.

With a view to practical steps being taken to deal with the housing question, a Central Housing Board has, in terms of Section 18 (1) of the Housing Act, been constituted to advise and assist the Minister, Provincial Administrations and Local Authorities in giving effect to the provisions of the Act.

As the present restricted supply of skilled labour and material must necessarily limit the progress of building, it should be the policy of all concerned to deal immediately with the erection of accommodation to relieve the first aspect of the problem (i.e., the shortage of houses), in so far as it affects all classes (European, coloured, Asiatic and natives). The investigations begun by the late Housing Committee will be continued by the Board and such steps will be taken as may be possible at present to effect improvement in the conditions of the poorer classes, and the Government will be advised further as to what measures are practicable to bring about a permanent improvement.

The successful accomplishment of the objects of the Housing Act must depend on:—

(1) The provision of the necessary funds.

(2) The co-operation of the building trades.

(3) The organisation of supplies of building material.

(4) The energy displayed by Local Authorities in the initiation of schemes and the measure of their acceptance of their responsibility in the housing question.

In regard to (1)—

The Housing Act provides that a housing loan fund may be established by each Provincial Administration, and for a limited period the Government has decided to advance money at 4 per cent. rate of interest.

The immediate object is to get houses built to eliminate the shortage arising from the late war conditions, and the financial assistance to be given is designed to encourage the building of houses not only by Local Authorities but also by the individual who desires to own his house, associations formed on a co-partnership basis (utility societies) or companies formed under limited profit-making basis. It is to be noted specially, however, that, in terms of Section 7 (3) of the Act, before approving any scheme the Administrator may require the Local Authority in whose area it is proposed to carry out such scheme to make reasonable provision for dwellings for the poorest section of the population, including the coloured and native people. The Act provides that all loans within the area of a Local Authority shall be made through the Local Authority. For a period of two years ending on the 31st August, 1922, and providing sites are chosen in undoubtedly suitable residential areas, a loan may be obtained by an individual to cover 90 per cent. of the cost of ground and house.

In regard to (2) and (3)—

It is essential that the active co-operation should be obtained of the artisan, the master builder, the importing merchant and the producer of local building materials, and with this object in view Secton 18 (7) of the Housing Act empowers the Board to convene from time to time as occasion may require committees containing representatives of persons and associations intimately connected with matters arising from the carrying out of the Act to assist the Board in the execution of its functions. It is confidently hoped that as a result of the convening of such committees

satisfactory arrangements will be made to expedite the building of houses.

In regard to (4)—

Private enterprise having failed to provide sufficient or suitable housing accommodation, it seems natural to look to the Local Authorities as the main agents for carrying into effect any legislation dealing with housing which intimately concerns the different localities controlled by them, and the Act definitely assigns this duty to them. The work requires local interest, knowledge and experience, which Local Authorities can best supply, and it should therefore be undertaken by them, subject to the supervision and control on behalf of the Central Government and Provincial Administrations, as has been laid down in the Act, to secure co-ordination of effort and a high standard of achievement.

Some Local Authorities have already made a preliminary estimate of the number of houses immediately required, but where this estimate has not been made it should be taken in hand. In considering the question of the need for houses, regard should be had to any special degree of overcrowding or prevalence of houses which are unfit for habitation, or for one reason or other fall below a reasonable standard, to the amount of building in the past, to the probable rate of increase or decrease of the population during the next few years, and to any anticipated industrial developments.

The preparation of an immediate scheme should not, however, be deferred pending a detailed survey of existing buildings. Such a survey should be undertaken as soon as possible, but the task of the moment is to ascertain the number and class of houses immediately needed, and to proceed with their provision.

The Central Housing Board will be ready to assist Local Authorities in regard to housing schemes at all stages, to advise on the choice and lay-out of sites and the types of houses to be erected, and also in the carrying out of schemes. The Board consider that all schemes submitted should be prepared by competent architects. It is recognised, however, that a Local Authority, having in its employ a properly qualified engineer or surveyor, may prefer that the scheme be prepared by such official with the assistance of a competent architect. It is suggested that, in order to avoid unnecessary delay and waste of labour in the preparation of schemes, Local Authorities should seek the advice of the Housing Board and submit preliminary proposals in the early stage of the work.

The following notes and suggestions have been prepared with the object of assisting Local Authorities in the preparation of schemes and the design of houses, and they embody the general ideas that will be acceptable to the Board in approving of proposals put forward by Local Authorities.

THE SELECTION OF LOCALITIES AND SITES.

The right location and the choice of sites for houses or housing schemes are matters of much importance and can only be secured as the result of an intelligent survey of the present needs, and probable future development of the towns and districts. Any given class of house when situated in a convenient or otherwise attractive position must be a more valuable asset than when it is not so placed; rent in addition to being a payment for accommodation is partly a payment for convenient location.

While it is desirable in the interests of economy to secure land as cheaply as possible, it would obviously be more economical to pay a higher price for suitable land in a locality where the houses are sure to be in demand, than to adopt cheap land inconveniently situated.

In selecting sites the following considerations are of importance:—

(1) Access to existing business and industrial centres and to areas which appear likely in the future to become centres of employment, or areas for which suitable transport facilities could be readily provided.

(2) Facilities for the social, educational and recreational needs of the prospective tenants.

(3) The configuration of the ground for economical development and the suitability of the subsoil to provide inexpensive foundations.

(4) Amenities of the site and fertility of the soil for gardens.

(5) Convenience and economy in the provision of sewerage, water supply and other services.

THE LAY-OUT OF SCHEMES.

In considering housing schemes the greatest economy in lay-out will depend on full advantage being taken of all the opportunities which the site affords. The lay-out in addition to satisfying the utilitarian requirements should develop the order and character of a good design.

By so planning the lines of the roads and disposing the spaces as to develop the beauty of vista, arrangements and proportion, attractiveness may be added to the dwellings at little or no extra cost.

In laying out a site general considerations come first, such as the location of the different parts of the scheme and reservations for open spaces; these open spaces may often be provided suitably on parts of the land not so attracive or convenient for the erection of dwellings. In the case of larger schemes such considerations will arise as the setting aside of sites for larger houses, schools, clubs or other public or semi-public buildings or groups of shops. It will be found both economical and generally convenient to group many of these special buildings around some centre, where social life and other activities can be focussed, and in relation to which the remaining roads and other parts of the scheme may be laid out and adapted to suit the site and circumstances of the case. The more important roads for providing convenient access to and about the estate would be the next consideration. When these have been located the minor roads, drives or footways necessary to provide frontage for, and give access to the required number of houses, with due regard to convenience and road costs would be filled in to complete the lay-out.

Among sites which are suitably placed in other respects, those will naturally be selected which can most economically be developed. Development expenses account for a considerable proportion of the costs of dwelling houses, and are likely to exceed expectations unless carefully considered in the selection of the site, the planning of the roads, and the placing of the groups of houses on their sites, so as to reduce excavation and the underbuilding of foundations to the minimum.

Where the land is approximately level the nature of the ground will not be a dominating factor in the arrangement of the roads. With undulating land, however, if reasonable economy is to be secured, both in development costs and in connection with the foundations for buildings, the lay-out must be greatly influenced by the nature of the site. Economy will depend on the proper and detailed adaptation of the lines of the roads, and the position of the buildings to suit the exact nature of the ground, such as can only be secured if the lay-out be based on a carefully prepared contoured plan of the area. It is therefore recommended that before any planning is attempted a properly contoured map of the area should be prepared.

The width of the carriage ways and footways should be determined by the probable traffic they will be required to carry. Adequate distance between the houses should be secured independently of such width. Each proposed road should be considered with a view to determining whether its cost is justified, either on account of its value for convenience of access, or because it affords frontage for a sufficient number of buildings.

In the United Kingdom it is not generally considered permissible in housing schemes for more than 12 dwellings to be erected to the acre (net area) in urban areas or 8 in rural areas. The Board recognise that the varying conditions in South Africa add enormously to the difficulty of laying down a general standard, but broadly speaking it is considered that every dwelling should have gardens of reasonable size and that over-crowding of dwellings on areas should not be allowed.

The attractiveness of a scheme will be greatly enhanced by judicious planting. Trees, shrubs and hedges should be chosen of kinds which are likely to flourish in the climate, soil and general conditions existing in the locality. They should be placed in positions suitable to their ultimate growth, and where they will contribute to some general effect. Wherever possible existing trees, hedges and shrubs growing on the land should be preserved.

THE DESIGN AND CONSTRUCTION OF HOUSES.

Typical plans have been prepared illustrating the minimum and maximum accommodation in houses for which provision should be made under the present proposals. These are for general guidance and are not intended to hamper initiative, or to prevent full expression being given to local customs or traditions or the use of local building materials. The Board are particularly anxious to avoid monotony of treatment and the stereotyping of designs, and consider that competent architects should be employed to plan and design the houses to be erected. It is useless to adopt a uniform plan for varieties of aspect. The houses should be designed to provide the best aspect to the living rooms and the majority of the bedrooms.

The total space that can be provided in a cottage is so small that it is of the greatest importance that the whole of it should be allotted to the different rooms and parts according to the degree of importance which each may serve in the general life of the family. Unnecessary passages and lobbies mean waste of space and consequently lack of economy, and must inevitably involve the curtailment of space in other parts of the house. Simple straightforward plans will usually prove most economical. Projections from the main building are usually costly in proportion to the accom-

modation given, requiring outside walling, foundation and roof with extra expense of flashing, spouting and drainage, etc.

It is of the greatest importance that simplicity in design should be carefully studied, and no features which are purely decorative should be introduced. Economy in maintenance should be considered in conjunction with capital cost. All materials should be of a durable kind and of a good quality, and good workmanship should be secured.

In considering housing schemes, on sites of varying character, each individual group of buildings will need to be carefully considered and adapted to suite its position, and to take advantage of opportunities as to aspect, prospect and levels which the position offers.

By the choice of suitable local materials, and the adoption of simple lines and good proportion, and grouping of the buildings, with well considered variations of treatment, good appearance may be secured within the limits required by due economy.

In addition to simple planning and design, economy may be secured by placing these parts of the house requiring plumbing and drainage as near as possible together, by grouping flues into as few chimney stacks as possible, by adopting a reasonable height for rooms (say 9 ft.) and by avoiding needless exterior works requiring periodical painting, such as large boards, fascias and imitation timber. It should not, however, be obtained by cutting down unduly the size of rooms or by adoping other than reasonably sound methods of construction.

It is very difficult in this country to fix minimum types of accomodation owing to the mixture of European and non-European population. In some parts of this country the question is simplified by the asiatics and natives being required to live in locations but in other parts there is not the same restriction. The result is that there are various grades of the poorer population living together in the same community, for many of whom the matter of levelling up to a desirable minimum standard of housing is a question of not only providing the accomodation, but of educating them to appreciate and desire improved conditions.

In suggesting a minimum type, therefore, it must be sufficiently simple to be suitable for the poorest classes, whether European or non-European, if they reside under similar conditions in the same community.

The smallest type of dwelling illustrated provides for a living room and two bedrooms. This, in regard to accommodation, design and construction, may be considered the barest minimum that should be provided under any scheme, except for housing in locations.

Considerable discussion will no doubt arise as to the necessity in the smaller houses to make provision for: (a) verandahs; (b) kitchens; (c) bathrooms.

(a) Verandahs.—Verandahs are usually intended for protection against climatic conditions and as an external lounge or sleeping place. They are often provided in positions where they are neither useful nor ornamental, or where they are not required on account of the aspect, and are too narrow to be made use of as lounge accommodation. It should be understood that the cost per superficial foot of verandah space is almost equal to the cost per superficial foot of an ordinary room. If the cost per cubic foot is taken of the house and of the verandah separately a greater difference will result, but it must be remembered that the cube cost of the house includes all the fittings, etc. It will be too obvious that the addition of a few extra feet on a room will not cost more than the provision of an external verandah to the same room. The cost of the external wall to the room is the same in either case, and the cost of the verandah paving, posts and rails will almost equal the cost of the finishing required in an addition of similar dimensions to the room. If a verandah is provided to obtain extra lounge accommodation, the superficial area of it must be taken into account when the desirable minimum areas of a certain class of house is under consideration. The provision of a back verandah, when made use of as a scullery and general passage way, can more easily be defended as an economical form of planning suitable to the conditions of the country. If external shade is required, tenants should be encouraged to erect garden shelters, which will answer the purpose equally well, and will save the payment of rent on the cost of verandahs. Custom is no doubt often responsibe for the provision of verandahs, without any regard to their economic value to the tenant, who has to pay the rent which must be charged for them.

(b) Kitchens.—The combined use of one room as kitchen, living-room and sitting-room is no doubt reducing accommodation to the minimum. If the house is not overcrowded little objection can be raised from a hygienic point of view and the arrangement becomes entirely a matter of comfort, the degree of

which is controlled by the amount of rent a tenant is able, or willing to pay for it.

In the smaller types illustrated the back stoep is arranged for use as a scullery so that the objection which might be raised to the water supply and sink drainage being in the living-room is obviated.

(c) Bathrooms.—The provision of a bath involves the cost of the space or room for its accommodation, the bath and fittings and the drainage, so that in the average small house the bath-room is perhaps the most costly feature. The arrangement of placing the bath in the scullery has been given a long trial in Great Britain, but recent enquiries into the housing question prove that it is a very unsatisfactory arrangement and it is now condemned. If a slipper bath is provided a hot water service is almost essential, as the heating of a considerable quantity of water (required owing to the large area of a slipper bath) is so inconvenient, without proper installation, that it is likely to often decide against making use of the bath. The cost of water is in some towns an important factor in the economy of a household and the amount required in the use of a slipper bath would be prohibitive. It will be found that if the desire for cleanliness is present that simple accommodation for a shower bath with the use of an ordinary portable bath either in the bedroom or in the enclosure provided for the shower bath will answer requirements. If the extreme view of providing a bathroom with a properly fitted slipper bath is acted upon, the expense will preclude any possibility of obtaining economic rents for the smaller houses, and in the majority of cases the room and fittings will be subjected to any but their legitimate use and be a continual source of expense for maintenance. Further, if this view is carried to its logical conclusion it should be just as necessary to provide similar accommodation for asiatic and native housing in urban locations. In the types of smaller houses illustrated a shower bath is provided on the back stoep and the enclosure would be available for a portable bath and the laundry tub.

Communal Services.—In Europe considerable progress is being made in the matter of communal services such as baths, laundries, hot water supply, kitchens and dining-rooms, etc. No doubt considerable economy both in regard to rentals and household expenditure may be effected by such services. On the other hand there is certain to be considerable prejudice to the system, and, although any movement towards its adoption must necessarily be slow, full and careful consideration should be given to its encouragement.

Materials.—No hard and fast lines can be laid down in regard to materials to be employed that would equally apply throughout the Union. The fullest use should be made of suitable local material. Local custom should be followed, except in so far that full scope should be allowed for the employment of material, or the putting forward of suggestions for the employment of material which may be comparitively unknown in the district, but which may prove economical and suitable.

It will be found that generall speaking brickwork is the simplest and most economical for wallings. The thickness will depend on the quality of the bricks and the local climatic conditions, and no fixed or definite rule can be laid down. For internal walls the thickness may often be reduced to 4½″ or even 3″ For external walls the minimum would be 9″ solid or 11″ cavity walls. The external finish will depend partly on the quality of the bricks and partly on the desired effect and may be either "bagged down", painted, plastered or rough casted.

Where suitable local bricks are obtainable it is doubtful whether the use of concrete for cottage building will effect a saving of any appreciable amount. It may in some cases prove as cheap but more durable than brickwork; it may also be more advantageous under some conditions of contracting to employ it in preference to brickwork, and again it may relieve the demand on the supply of skilled labour and bricks. Suitable local stone may in cases compete in price with either brick or concrete and the widest scope should be allowed for the use of any suitable walling material.

A studied variation in the use and treatment of materials will provide a more pleasing effect and help to counteract any suggestion of monotony that may arise from simplicity of design or similarity of plan.

The construction of roofs should be as simple as possible. Broken roofs with valleys and hips will as a rule add considerably to the cost. Rain water pipes should be considered in regard to the number strictly required and their position in relation to the general drainage scheme.

Considerable economy may be effected by standardising a limited variety of doors, windows, fittings, etc., and to have these manufactured in bulk. The cost of such fittings should be considerably less than that of purpose made fittings and, at the same time, overcome the objection to the use of ordinary stock fittings, the types being designed to give suitable variation in individual houses and in schemes consisting of groups of small houses.

Drainage.—In the development of any area for building purposes the method of drainage to be adopted must receive careful consideration, and full advantage must be taken of all the opportunities which the site affords to ensure the greatest economy in the drainage reticulation.

Economy must be effected in the drainage of small dwellings by the adoption of the common drain or sectional drainage. This consists of using a common drain to collect the drainage from a number of houses and to deliver it into the main sewer at one point, instead of requiring each house to have its drainage separately connected. The latter system involves separate disconnecting traps, manholes and ventilating arrangements for each house, with a separate connection cut across the road to the sewer. The adoption of the system will in some cases be difficult owing to the fixing of the liability for the common drain, but in the case of municipal housing schemes, where the local authority is the owner of the property, this difficulty largely disappears. The sanitary fittings in dwellings should be grouped as near as possible together in order to reduce length of drains, and the number of connections, to a minimum. An excessive number of manholes is sometimes provided where rodding eyes would answer the purpose.

Gardens.—The lay-out of the garden should be considered as an important feature in the planning of a house. The expenditure on construction and planting should also be considered and be included in the initial cost of the house. Suitable soil, if not existing, should be provided, the ground trenched and cleaned, and suitable hedges, shrubs and trees planted at the earliest opportunity during the erection of the house. The cost of such work will usually be less and the effect much more pleasing than the introduction of architectural features in the design of the house.

STUDENT'S COMPETITION.

DESIGN.

A prize valued at £5 5s., donated by the President, Mr. D. M. Sinclair, F.S.Arch., will be given to the student who submits the best design for a small house consisting of lounge, living room, three bedrooms, kitchen, pantry and bathroom, to be erected upon a fairly level site of ¼ acre with a 200 feet frontage facing south.

The design may be either single or double storey, and must be illustrated by the following drawings:—Plan of each floor, one section and four elevations, to a scale of one-eighth inch to a foot, and details of portion of one front to half-inch scale.

Drawings should be on Imperial size white paper unmounted.

CONSTRUCTION.

A prize of £5 5s., donated by Mr. E. M. Powers, F.R.I.B.A. (Vice-President), will be given to the student who submits the best drawing of Gothic stone vaulting, Thirteenth or Fourteenth Century.

The type of vaulting selected should be illustrated by plan, section and elevation of one Bay drawn to a scale of 4 feet to an inch, showing ribs and filling, springing and intersection of ribs and jointing.

MEASURED DRAWING.

A prize of £5 5s., donated by Mr. D. M. Burton, F.S.Arch., M.R.San.I., will be given to the student who submits the best set of measured drawings of the West Doorway, St. Mary's Church Hall, Plein Street, Johannesburg, and for the convenience of Pretoria students the subject chosen is portion of Interior of Chancel, St. Alban's Cathedral, Pretoria, showing Reredos.

The drawings are to be drawn to a scale of 4 feet to an inch, and executed in black ink only (no colour). The drawings to consist of elevation, plan and section, with ¼ full size sections of mouldings. Portures in sectional plan and elevation may be blacked in solid.

Permission to measure the work should be obtained from the Vicar of St. Mary or the Dean of Pretoria respectively.

All work submitted must be the bona fide work of the student submitting same and must be accompanied by a declaration to this effect.

The awards will be made by Messrs. R. Howden, F.S.Arch., A.R.V.I.A., and H. G. Veale, F.S.Arch., whose decision will be final.

All designs must be delivered to the Registrar, 67, Exploration Buildings, Commissioner Street, Johannesburg, on or before February 20th, 1921.

From West to East

By G. W. Nicolay, M.S.A.

Before the present era the Romans were masters of the ancient world. In the last 200 years of the preceding era they had been acquiring that mastery, settling the government of the provinces into which the sphere of their rule had been divided, and dealing with the disputes and revolutions which appear to be normal in all governments influencing very extended areas.

We are astonished at the rapidity with which the Roman Empire was established: at the magnificent organisation by which it was maintained, and still more at the neglect and want of persistence by which it perished.

We cannot be the least surprised that a people continually occupied in war with any and every country with which they could get into contact for the set purpose of establishing authority over them, should lack the refined tastes of the Greeks whose methods were less rapacious and who gathered the wealth necessary for the attainment of their artistic ambitions more by wars of defence than by wars of agression.

The Assyrian methods were still in vogue though much modified, and during this period, and long after, the steady flow of Greek works of art from Greece to Italy was well maintained; the Greek artists, as has been noticed, going with them.

It is apparent that Roman architecture was developed more by the influence of the Roman than by any artistic instinct he possessed. A comparison of a few details of his work with similar Greek work will make this seem quite apparent.

Compare, for instance, the profits of cornices of the Greek and Roman buildings and the gradual reduction of the mouldings to simple forms often repeated, not apparently because simplicity was aimed at but that artists lost their fine sense of line and composition

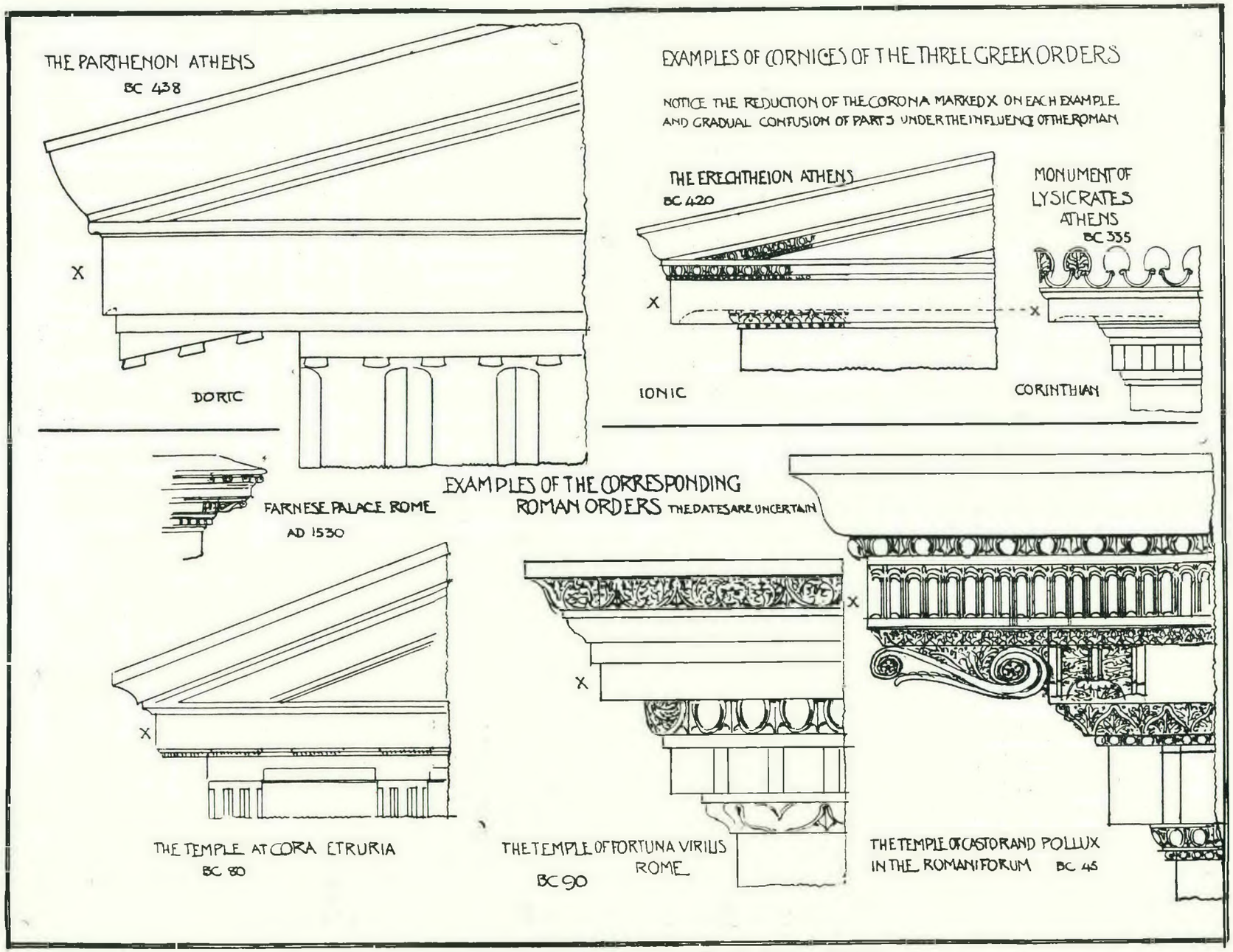
It is remarkable that the method of elaboration adopted is first seen in the Greek Corinthian order. It consisted in adding members enriched with notchings or carving or beads until at last the most characteristic members of the entablature, as presented by the best ancient examples were scarcely traceable, the corona of the cornice particularly being reduced to a mere broad fillet.

But if their work had not the charm of the Greek art in its details, in the general aspect of their buildings they showed a variety of plan and management of various parts of them quite astonishing. It would be difficult to name a simple geometric form that has not formed the basis of the plan of some notable building. The semi, three-quarter and full circle, the ellipse, square and polygon and combinations of them, appear in nobly conceived plans during the long period of perhaps nine hundred years during which characteristic Roman work flourished as if it would grow for ever over the vast area of the Latin influence.

They added to the Greek methods the arch, and the vault with transverse intersections, and the dome, and proud perhaps of the achievement made them the most notable features of their greater works.

The energy with which they piled up monument after monument, drew their aqueducts across the countries, and their paved roads over the whole world produced a tide-like flow of building in their own manner which only ebbed in Rome in the fourteenth century of the present era, and was almost immediately revived again by the return to old traditions and the study of Roman and Greek literature.

But while all this was going on other methods and developments were proceeding. The Empire had been divided and the wealth and majesty of it transferred from the West to the East, from Rome to Byzantium, afterwards called Constantinople, with interesting results, principal among which was the elimination of the collonade and the substitution of the arcade; the discarding of the column against the wall or attached to it in connection with the entablature, and instead introducing the buttress and the independent cornice. And so it happened that from about middle of the 6th century, when these principles were firmly established in the great Church of St. Sophia at Constantinople, the "orders" gradually disappeared and the new method which we call Byzantine replaced the ancient methods which, no doubt, were intended as seemed likely to be the final expression of art in building. We may expect now that such a thought is as foolish as vain. We may expect perpetual changes, welcomed by some and regretted by others. But in the general view of the past every change has led to added knowledge and induced fresh efforts, which have



Illustrating "East and West."—Drawn by G. W. Nicolay, M.S.A.

been well repaid by results. What had happened before occurred again, and from a point not far removed from that whence the first great artistic effort in building was made, another scarcely less successful came into being, first in Athens and now in Byzantium.

The Greek at Athens worked under severe restraint of the vertical and horizontal lines, and seems to have purposely avoided the circular form, which he used very seldom. The Byzantine working under conditions of great freedom was now ready to use any forms. He aimed at building both with greater magnificence and permanence, suppressed the timber roof and substituted the dome of brick or stone, and decorated the walls with mosaics instead of applied colour. There were no great sculptors to leave as the Greek had done statuary, which made over two thousand years ago is still the model and pattern for all who would excel in that phase of art. But they produced a school of carvers whose work stands well-nigh as high in the estimation of artists.

Once more the art treasures came freely westward, but this time not as spoils of war but simply as the working out of the new building aspirations of the Empire of the East. The tide soon reached the Western Empire, and possibly because it was a common sense treatment was adopted and by a similar process to that made use of in Byzantium produced a style more characteristically Roman than that which carried the Roman "orders."

Excepting in their temples, which were in arrangement very like those of the Greeks, the "orders" hung about their buildings like an excrescence. When the use of the arch presented advantages which it was against the Roman genius to neglect, namely, of covering an opening and carrying the work over it without being restricted as to size by the length of suitable stone readily obtainable, they used it at once. In buildings which had no traditional form they neglected the orders, buildings such as bridges and aqueducts. Where the orders had been traditionally used they placed the arch between the columns, where it appeared as if framed in architectural surroundings with which it had no particular connection or sympathy. The new arrangement reduced their architecture to the severe discipline so dear to them and by which they had attained so much. But they had run their course. Before this time the Roman Empire was little more than a word, disruption and disaster had induced them to evacuate one country after another, and Italy itself was rapidly settling down to a condition of mixed governments in petty States, and in consequence to a secondary position among nations. And it is well to remember how this came about. When governments are constantly and honestly occupied with their proper business, the good government of those over whom they rule, it matters little what the form of government is, all will go well. When the name "Roma" was a name of reverence and protection, when it was sufficient for a man to say "civis Romanus sum" to ensure to him safety and respect though he might be a thousand miles from Rome, it was well for the State and well for the people. When the government failed the civilisation, good customs and fellowship of people broke down with it, and where order and good work had been the rule, confusion and chaos prevailed for centuries.

All this, however, assisted in making complete or nearly complete the change which had been so courageously begun, and it amounted to nothing less than a reversion to first principals and announced the universality of artistic principals. The pattern book may be very convenient, but there is no wisdom in trusting to it. The Romans saw this clearly and broke away from the old traditions with a sincerity only reached once again in the history of architecture, and even in their reduced empire of Byzantium continued, as we have just seen, to make their last effort of this kind. The Byzantine work was as fresh and as sumptious as any of their former work. The next step, the development of the same principals under different conditions, was in other hands and worked out what still handed on their influence and their name, the manner we call Romanesque. The greediness of a new fashion among men is remarkable, amazing. Buildings innumerable were pulled down to make way for it, the very stones being re-used. Those buildings would be treasured to-day. We much desire to see them, we spend money in digging them out, making drawings of them, and writing books about them. Nevertheless, we go on perhaps because we cannot do otherwise, breaking down work which is often much better than we can do, and building in new fashion what pleases us in its place. And so continue making our ropes of sand and gather water just to see it flow again.

Society of Architects, (London).

(South African Branch.)

The annual meeting of the South African Branch of the Society of Architects (London) was held at the offices of the Association of Transvaal Architects, 69, Exploration Building, Johannesburg, on Monday, the 15th November, 1920, at 4.30 p.m.

Present.—Messrs. R. Howden, Senior Vice-President (in the Chair), D. M. Burton, J. F. Beardwood, M. J. Harris, J. W. Small, Norman Harvey, H. Bell-John, D. M. Sinclair, S. C. Dowsett, H. G. Veale and J. S. Donaldson (Hon. Secretary).

Non-attendance.—Apologies were received from Mr. Allan Wilson and from the President, Mr. W. J. McWilliam, by telegram from Port Elizabeth.

Annual Accounts.—A statement of accounts for the twelve months ending the 30th September, 1920, was presented by Mr. Burton, the Hon. Treasurer, showing a balance at bank of £144 12s. 9d. On the motion of Mr. Beardwood, seconded by Mr. Harris, the balance sheet was adopted.

Valedictory Address.—In the unavoidable absence of the President, Mr. W. J. McWilliam, of Port Elizabeth, his following valedictory address was read by the Chairman:—

My term of office has drawn to a close, and I have to address you as one who has been, as your President, I fear of very little service indeed.

As the first to hold this office while residing so far afield, I am conscious of having proved a failure, but however much this may appear to show lack of interest I can assure you, gentlemen, it is only through lack of opportunity.

The past year has been an extremely busy one for the profession, as you all know, and I am pleased to say this centre has come in for a fair share and circumstances have all culminated to prevent my visiting Johannesburg to attend the annual meeting.

The past year has been one of the most fruitful in large architectural undertakings that we have had for a considerable time, many fine schemes having been brought into the region of practical development.

In this connection we have to record the loss of one of the greatest architects South Africa has yet produced in the untimely death of Mr. J. M. Solomon, whose career was well known to us all, and whose ability and outstanding success had attracted attention all over the Union. Mr. Solomon's death is a great loss to our profession, and it is greatly to be regretted that he did not live to see the consummation of his work in the completion of the University of Capetown.

The cause of registration which is the main reason for the foundation of our parent society in London has been making headway in several American cities, but little has been accomplished in South Africa during the past year, though the will to progress in that direction is only dormant and not dead, but with the election of Mr. Reid to the Presidency of the Cape Institute I hope to see another stride towards the end we all have in view.

It is, of course, quite possible that the subject has been freely discussed and thus furthered amongst the members of our Council and their colleagues, but being so far from the larger centres I have had no opportunity of participating.

The membership classification of our parent society is in the course of reformation, and I am sure the scheme being carried out has met with the approval of every member of this branch.

It is fitting, I think, that admission to the Fellowship should be strongly guarded, in order that only men of the highest merit should be elected to that class, and thus form in the minds of rising students a place of honour to be aimed at, and improve the status of the Society in the eyes of the public and place it on an equal footing with any other in the British Empire.

In the Cape Province a tax has been imposed on the profession of architecture, and also on that of quantity surveying. I have not had an opportunity of discussing this with members at other centres of this Province, but it seems to me that this tax could be used as a lever to secure the passing of a Registration Act.

The National Federation of Master Builders has endeavoured to standardise a Schedule of Conditions of Contract for use throughout the Union and has instructed all affiliated associations to refuse to sign any contract in which these conditions are not embodied save, however, that slight modifications are permitted in order to meet local conditions.

While I think that the object the Federation has in view is a laudable one, and one, too, that the various architectural bodies ought to appreciate, I cannot but express regret that the Master Builders have adopted the course they have in endeavouring to standardise this schedule. Your Council is acting in conjunction with the Council of the Association of Transvaal Architects in revising the schedule and sound legal opinion has been called to their aid. I trust that the modifications necessary to suit the requirements of our pro-

fession will meet with the agreement of the Master Builders.

Owing to the very unsettled state of the labour market all over the world, and the incessant demand for skilled artisans, all works under construction are making very slow progress, and contractors are refusing to sign contracts in which a penalty for non-completion by a fixed date is imposed, while at some centres, tendering for work is quite out of the question by reason of the paucity of supplies both of labour and materials.

This is a state of affairs that is new to all of us, and with the call for houses, more houses, and again houses, and the passing of the Housing Bill to enable local authorities to secure funds to meet the demand, one wonders when normal conditions will appear, even on the distant horizon.

Unless steps are taken at once by the Union Government to encourage an apprentice system, or failing this then to establish numerous training schools and subsidise students in building contruction, I fear there is no hope of relief in the direction of securing skilled labour, since in all other countries the scarcity is equally felt. In England, for instance, the supply of building operatives is only about 50 per cent. of the demand in practically all trades.

Strikes in the building trades have been prevalent during the year, and at this centre at least wages have gone up 80 per cent. to 100 per cent. without producing a better supply of men or quicker and more skilled workmanship.

The Central Housing Board contemplates the establishment of a standard fee for architects engaged to carry out works under the provision of the Housing Bill, and as the fees are the same as those adopted by architectural bodies in England they should meet with our approval. It is also pleasing to notice that the Central Housing Board is encouraging the employment of qualified architects to prepare housing schemes.

In conclusion, I must express my sorrow for not having been more active as your President, and my thanks to the Council for their kind consideration of the position in which I have been situated while holding the office.

I offer my congratulations to Mr. Donaldson, whom I anticipate will be my successor, and I feel sure that if he proves as worthy in the President's office as he has done in that of Honorary Secretary, the Branch will not regret their choice.

Thanking you, gentlemen, in the hope of a patient hearing.

A short discussion arose out of the address. Messrs. Howden and Burton were of the opinion that the most important matter to consider was the question of apprenticeship, mentioning that an invitation had been received from the Principal of the Johannesburg Trades School extending to the executive and members to visit the School. It was decided to leave the matter to the incoming Council to deal with.

Mr. J. S. Donaldson, the newly-elected President, was then inducted to the chair by Mr. R. Howden.

The election of the honorary officers and Council was then proceeded with. The following gentlemen were elected for the ensuing year:—

Vice-Presidents: Messrs. Frank Scott, J. F. Beardwood and D. M. Burton.

Hon. Secretary: Mr. H. G. Veale.

Hon. Treasurer: Mr. D. M. Sinclair.

Hon. Auditor: Mr. S. C. Dowsett.

Council: Messrs. R. Howden, M. J. Harris and Allan Wilson. W. J. McWilliam (ex officio.)

Inaugural Address.—The President, Mr. J. S. Donaldson, then delivered an inaugural address as follows:—

Gentlemen,—

I have to thank you for the honour you have conferred upon me by electing me to the President's Chair for the ensuing year. I appreciate the honour, and will endeavour to justify the confidence you have reposed in me.

The thanks of the members are due to the retiring hon. officers and Council, especially to Mr. Howden, the retiring Senior Vice-President, for so ably presiding at the Council meetings during the past year. Our retiring President, as you are aware, is a resident of Port Elizabeth, and hence was unable to attend our meetings.

I do not intend to address you at length, but I feel that you expect me to say a few words which affect the Society in particular, and the profession generally.

The following matters occur to me at the moment: First, there is the question of apprentices to the building trades. This important matter has been ingrossing the attention of the retiring Council for the past year, and although no tangible results have so far been obtained, much spade work has been accomplished. It behoves us now to co-operate with the Master Builders and Allied Trades Associations, the Federation of Trades, and the Trades School authorities, to work out some system to encourage and persuade the youths of this country to train for the several skilled and technical trades, instead of drifting, as many are doing, into "blind alley" occupations, such occupations tending only to increase the poor white problem.

It is regrettable, but nevertheless true, that many families are averse to their sons entering as appren-

tices in such trades as bricklayers, carpenters, plasterers, etc., the reason seems to be that such work is looked upon as derogatory and undignified. That idea is a fallacy! It is recognised that many skilled tradesmen are infinitely better off to-day than is the case with many professional men. Good mechanics are commanding good wages, and are likely to do so for many years. Greater facilities should be offered to lads desirous of entering trades as apprentices, such facilities should embrace a first-class technical school training and students should be subsidised. Such schools should be provided by the Government and should be established at all important centres of the Union. There are already a few industrial schools, but the number is not adequate.

It is well known that the poor whites of our large cities are mostly drawn from the bijwoner class of people from the country; that being so, the training of the sons of the people as apprentices to help them to become good and useful citizens should be looked upon as a national problem and viewed from a national standpoint.

I understand that it was the intention of the Government to introduce an Apprentice Bill during the last session of Parliament; evidently the matter was allowed to drop. Surely it is the duty of the Government to consider the matter seriously and sympathetically by legislation and otherwise.

Owing to the serious shortage of tradesmen in South Africa and the small prospect of augmentation from overseas, the matter is of serious import.

HOUSING SCHEMES FOR SOUTH AFRICA.

The difficulty of housing people in our country is just as great as it is in Europe, and perhaps on account of our large black and coloured population far more serious. Therefore housing schemes in South Africa have to be approached with a double difficulty. We have to deal with a white and coloured and black population and in each case the temperamental treatment of each class or race should be observed.

You will be glad to know, at any rate, that a Housing Act has come into operation in South Africa with a board of qualified professional gentlemen to advise on the various and different places which occur in the different portions of a vast and wide country—each district of course necessitating it own peculiar view point, and so the board appointed by the Government have by no means a simple task, and their work is no sinecure. It is encouraging to architects in South Africa to note that the Board insists, where it is possible, that before recommending any loans to Municipalities or other bodies that qualified architects shall be employed to deal with the problems of housing. This is a wise precaution, and will tend to avoid repetition or mediocrity and dullness, besides undoubtedly giving more livable houses for the people.

The Johannesburg Municipality have a scheme for housing of whites and natives. I understand the scheme for the natives is being carried out by and under the Municipal authorities. Nothing seems to have been settled with regard to the housing of the whites. When the scheme is settled, it is hoped that the work will be entrusted to the registered practising architects of the town. The question of housing is so serious that the matter should not be shelved. The erection of many more houses would in a measure help to eliminate the deplorable conditions of the slums, which are a disgrace to our city.

It is gratifying to report that the by-law passed by the Johannesburg, Springs and Boksburg Town Councils, and approved by the Administrator, has been gazetted that all plans submitted for Municipal approval for buildings, etc., exceeding the cost of £200. must be signed by qualified architects. This law, I consider, is a sound one. It will undoubtedly mean that a better regulation of building and skilled design will become the more general rule in those towns, and the by-law will further in a great measure assist the municipal authorities by preventing the deterioration of whole neighbourhoods into slum areas. In this connection the thanks of the members of the Branch are due to Mr. M. J. Harris, one of our Past Presidents, who, as a member of the Johannesburg Town Council, gave the new by-law some trenchant support. Pretoria, which has had a similar by-law in working for some years, gives an encouraging precedent as to the beneficial results which may be expected.

UNIFICATION AND REGISTRATION.

You are already aware that a scheme for some sort of joint action or unification is under consideration by the Society of Architects, the R.I.B.A., and other architectural bodies in England. I hope their deliberations will lead to real practical unity and more particularly to the statuatory qualification and registration in the Mother Country. Coming nearer home to the much desired Architects Act for the Union, it was hoped that some finality would have been reached during the past year. Our Society has always endeavoured to bring about registration. We must continue our efforts for a Bill for the whole of the Union, or failing that, for the extension of the Transvaal Act to the other Provinces of the Union.

ARCHITECTURAL CHAIR AT THE NEW UNIVERSITY.

Your Society has taken a keen and constant interest in the new University of the Transvaal, the

building of which is about to be proceeded with after a big competition amongst our leading architects. Many years we have, as a Society, given our help and encouragement to the proposal of a Chair of Architecture in one of the South African Universities. This Chair has now been decided upon, and the new University of the Transvaal is to have the honour of its seat. This has not been brought about without considerable effort and expense. For instance, the Association of Transvaal Architects, who are really responsible for the consummation of the scheme, has had to guarantee a large sum of money for the initial expenses. Our Society has been requested to assist in this expense, and it is confidently expected that our members will do their utmost to swell the fund to its desired figure.

WAR MEMORIAL SCHOLARSHIP.

The Home Council have established the Victory Scholarship, minimum value being £100, to be open to competition annually. The Scholarship is to carry with it the Gold Medal of the Society. It has occurred to me that it is now an opportune time for the Branch to allocate a sum of money to the Victory Scholarship to commemorate the deaths of those members of our profession who have given up their lives in the great war.

S.A. ACADEMY.

The first Exhibition of Arts and Crafts of the S.A. Academy was held last year, and it was an unqualified success in every way. It is proposed to hold a second exhibition in March next, and I hope our members will make every effort to contribute to its success by sending exhibits of works of architectural merit, as naturally the success of the scheme very largely depends upon the quality of the exhibits sent in. The temporary architectural work sent in last year was portrayed by excellent drawings, etc.

The Academy was inaugurated under the auspices of the Association of Transvaal Architects by Dr. D. M. Burton, Past President of the Society, to whom our thanks are due.

TECHNICAL BODIES' HOUSING SCHEME.

I note with pleasure that the housing scheme to amalgamate all the technical and scientific bodies under one roof is now an accomplished fact. There is, however, much to be done in extending the building to bring it up to the necessary requirements, and for that purpose more funds are necessary. Our members will, no doubt, endeavour individually to do their share in the matter.

TOWN PLANNING.

Your Society is represented on the Town Planning Association of the Transvaal, whose usefulness is generally recognised. I take this opportunity of congratulating Mr. D. M. Burton on his election as President to the Town Planning Association.

There seems to be some pessimism prevalent as to the future prosperity of the profession in this country. One often hears that a very serious slump is impending. I have been a resident of Johannesburg for many years, having arrived here in 1887, and can claim to be an old pioneer. To my knowledge the bogey of a serious slump has been a continuous one ever since the birth of Johannesburg, notwithstanding that the city has grown to the largest in the Union, and will continue to grow, in spite of all such bogeys. Personally, I am an optimist as far as the future of our country is concerned. To my mind, it does not really matter how the country may occasionally be mismanaged, politically or otherwise—its expansion cannot be retarded. What is urgently required to assist it is Government and Municipal support for all sound industrial concerns, especially afforestation, iron, cereals, etc., and it behoves us all as workers, whether professional or otherwise, to do our utmost to encourage production to enable us not only to produce for our own consumption but to rank with other countries in exportation and in that way help to make this country as great as nature has destined her to become. Concluding, may I say that I feel confident that I can rely on the hearty support of the Council and the members during my term of office.

I thank you, gentlemen, for a patient hearing.

It was agreed on the proposal of Mr. Harris, seconded by Mr. Howden, that the valedictory and inaugural addresses be published, and referred to the Council for their consideration.

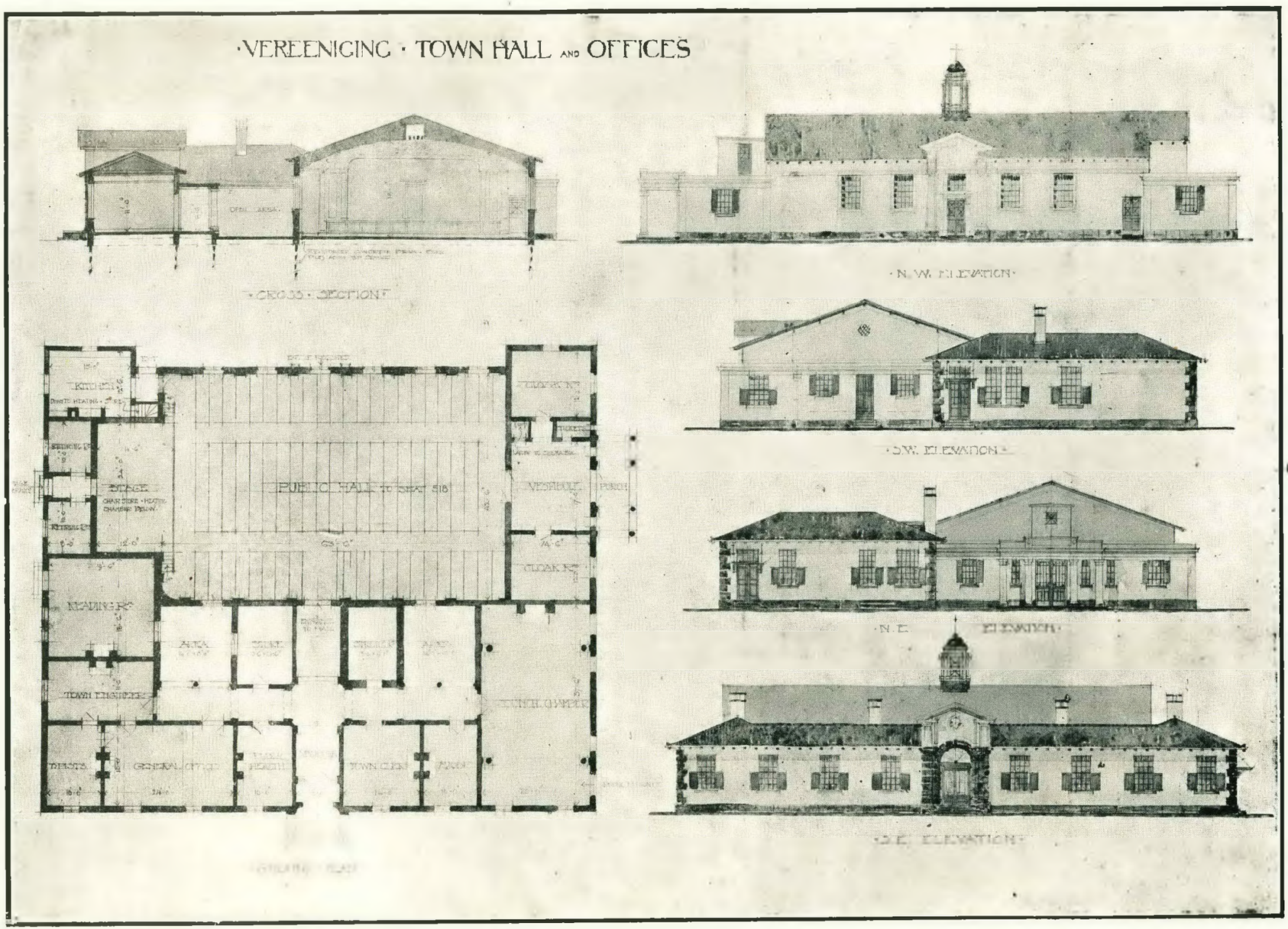
CHAIR OF ARCHITECTURE.

Mr. D. M. Burton said:—It was a matter for deep congratulation that a Chair of Architecture had practically been decided upon by the new University of Johannesburg. This had not been brought about without very long and arduous work on the part of those who took a keen interest in the welfare and progress of their profession. No effort had been spared by all those architects to obtain the Chair at Johannesburg, as we all feel it will be more beneficial to the young men if such a Chair is established here, than perhaps at Capetown. Before the Chair can actually be established, it will be necessary for the architects to put up the sum of £500 for the initial costs; afterwards the University people will carry on at their own cost. This sum of money had been raised, and he looked forward to the time when pupils in architecture will proceed to Johannesburg from all parts of South Africa. Now, the Society has a little money in hand, and he had great pleasure in proposing that an amount of Fifty Guineas be donated for a bursary to the University for architectural encouragement.

This was seconded by Mr. Howden, and passed unanimously.

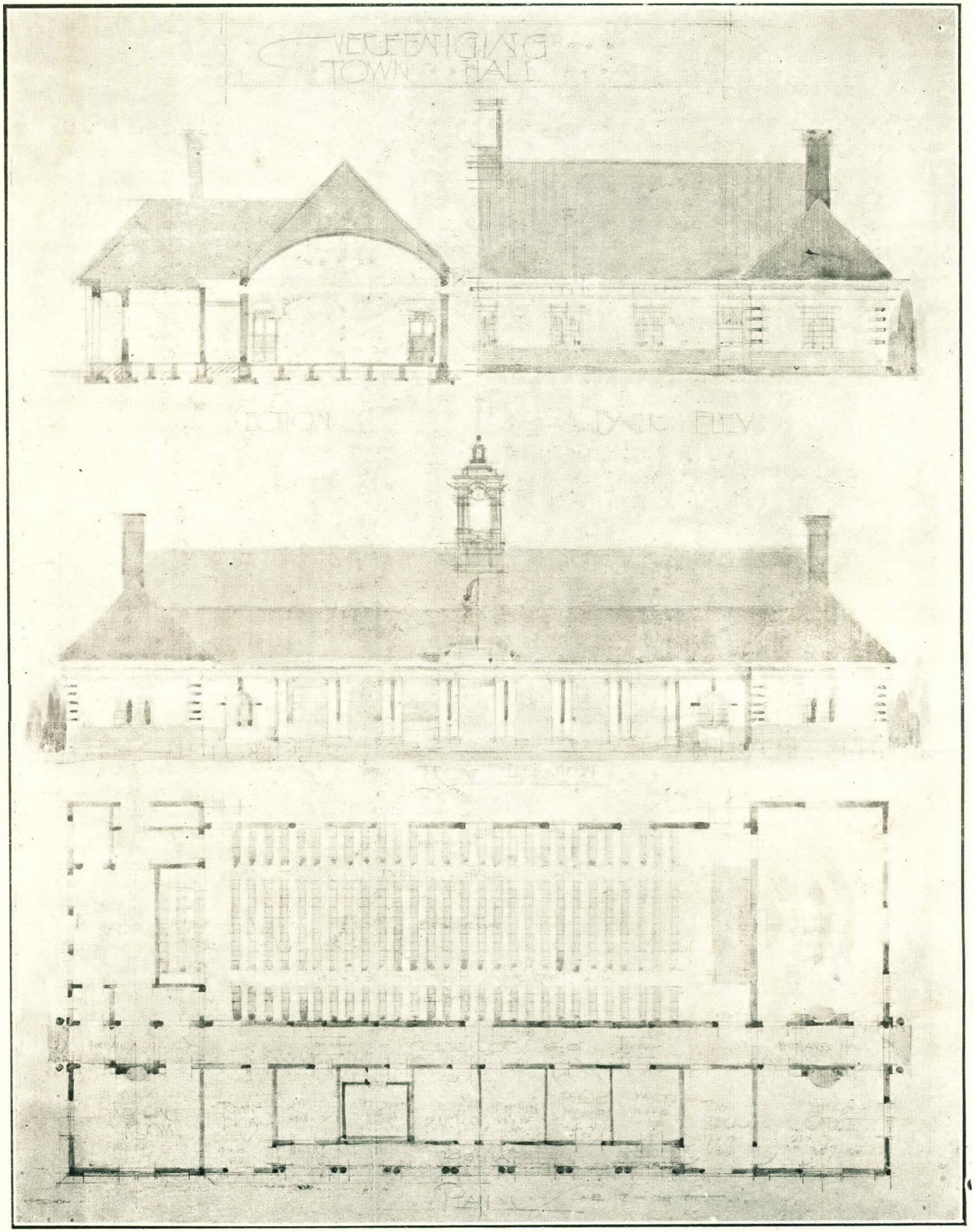
Mr. Burton moved a vote of thanks to Mr. Dowsett for his services as Hon. Auditor, which was unanimously agreed to.

A hearty vote of thanks was accorded to the retiring President, hon. officers and Council.



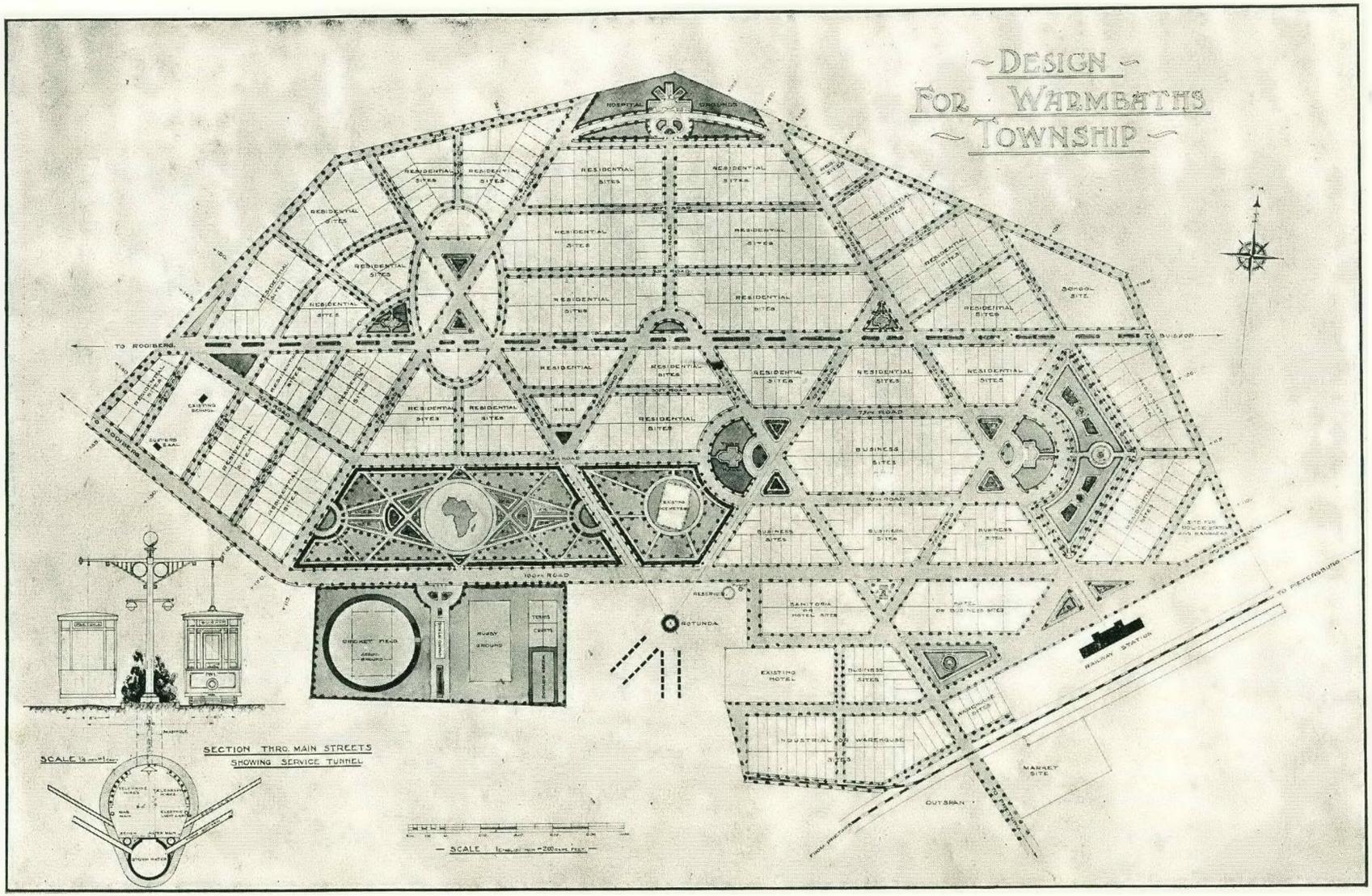
First Premiated Design,—Hawke & McKinlay, Cape Town

VEREENIGING TOWN HALL.



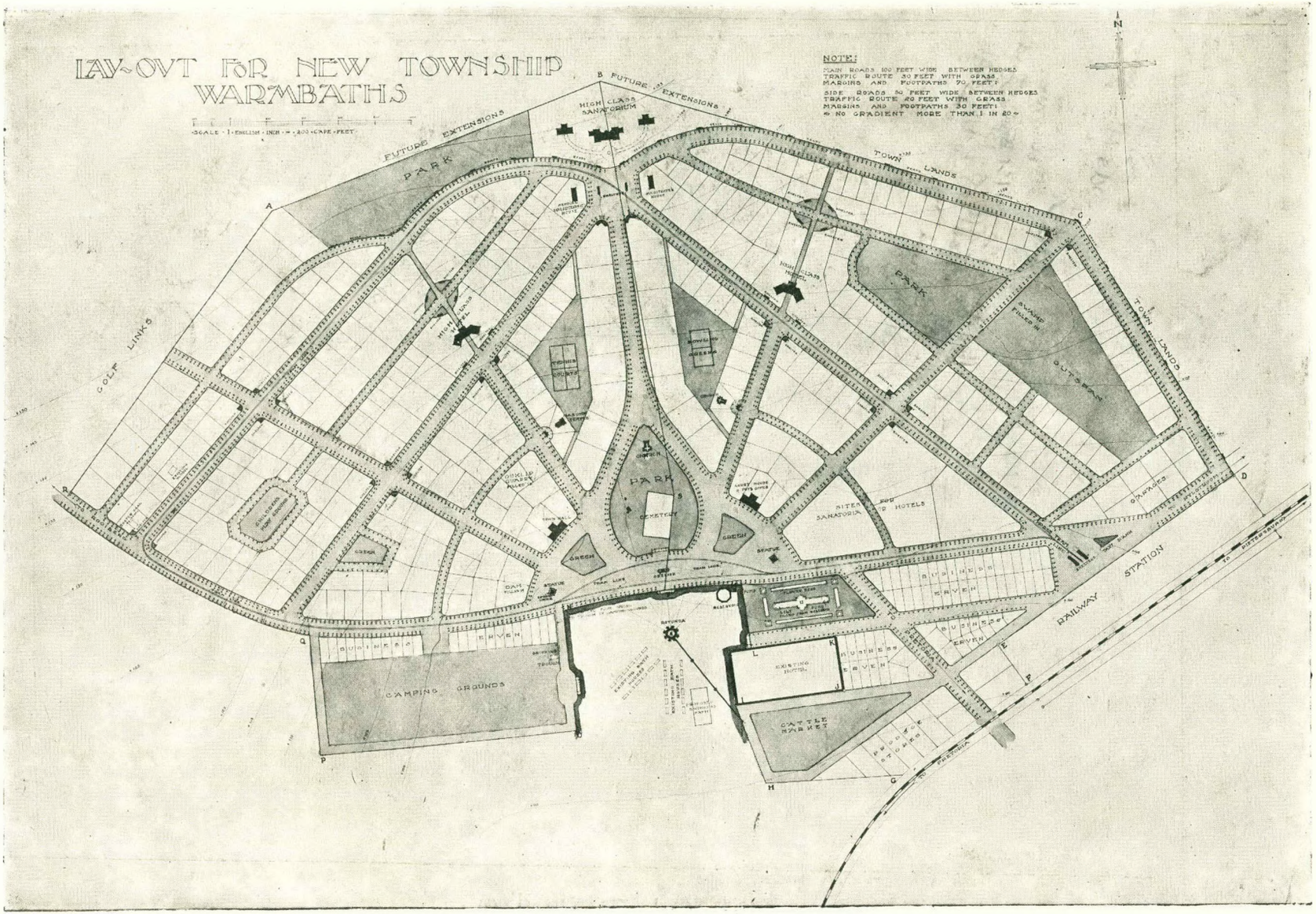
Second Premiated Design —A. J. Stewart, Johannesburg.

WARMBATHS TOWNSHIP.



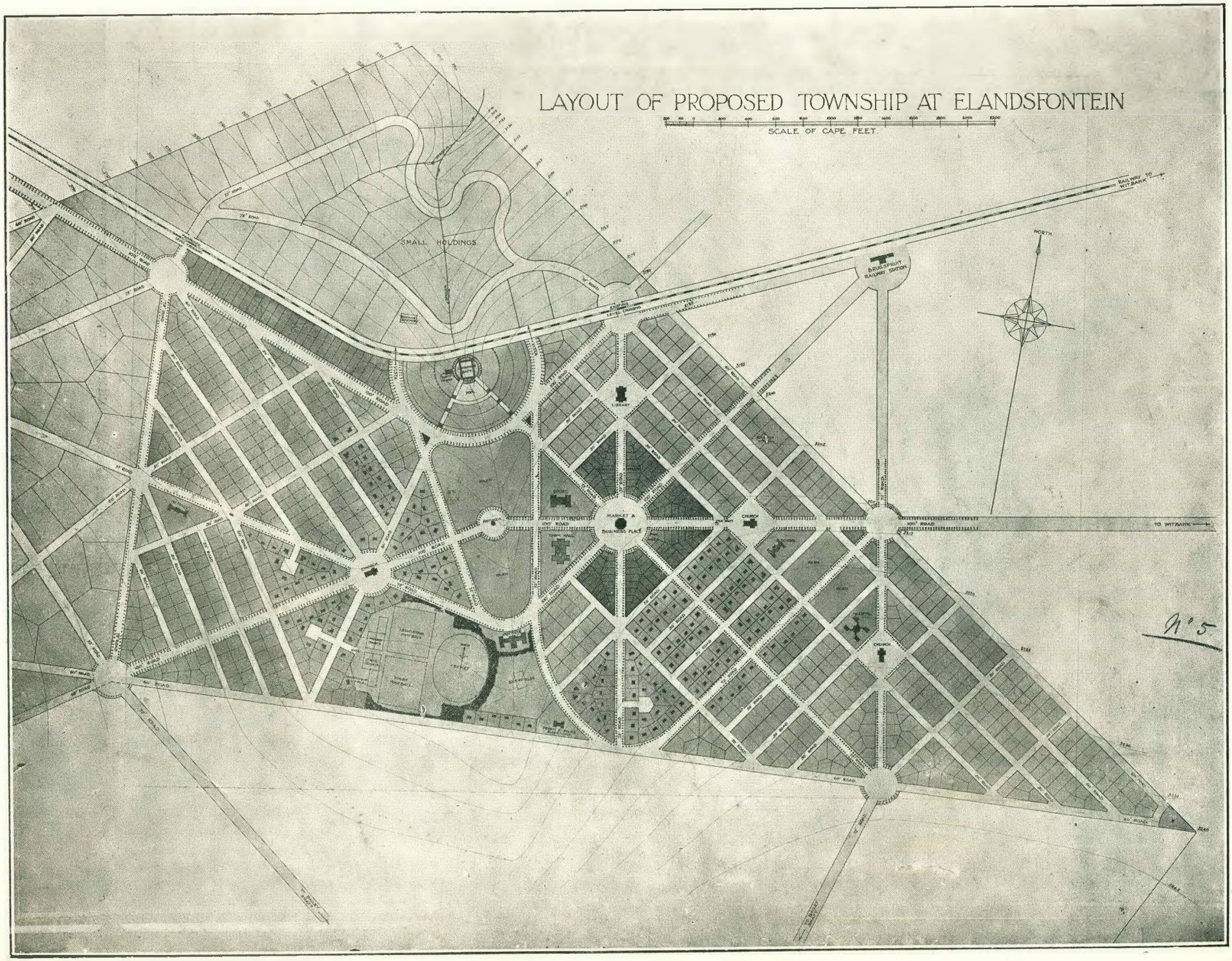
First Premiated Design.—J. A. Moffat, M.S.A., Johannesburg

WARMBATHS TOWNSHIP.

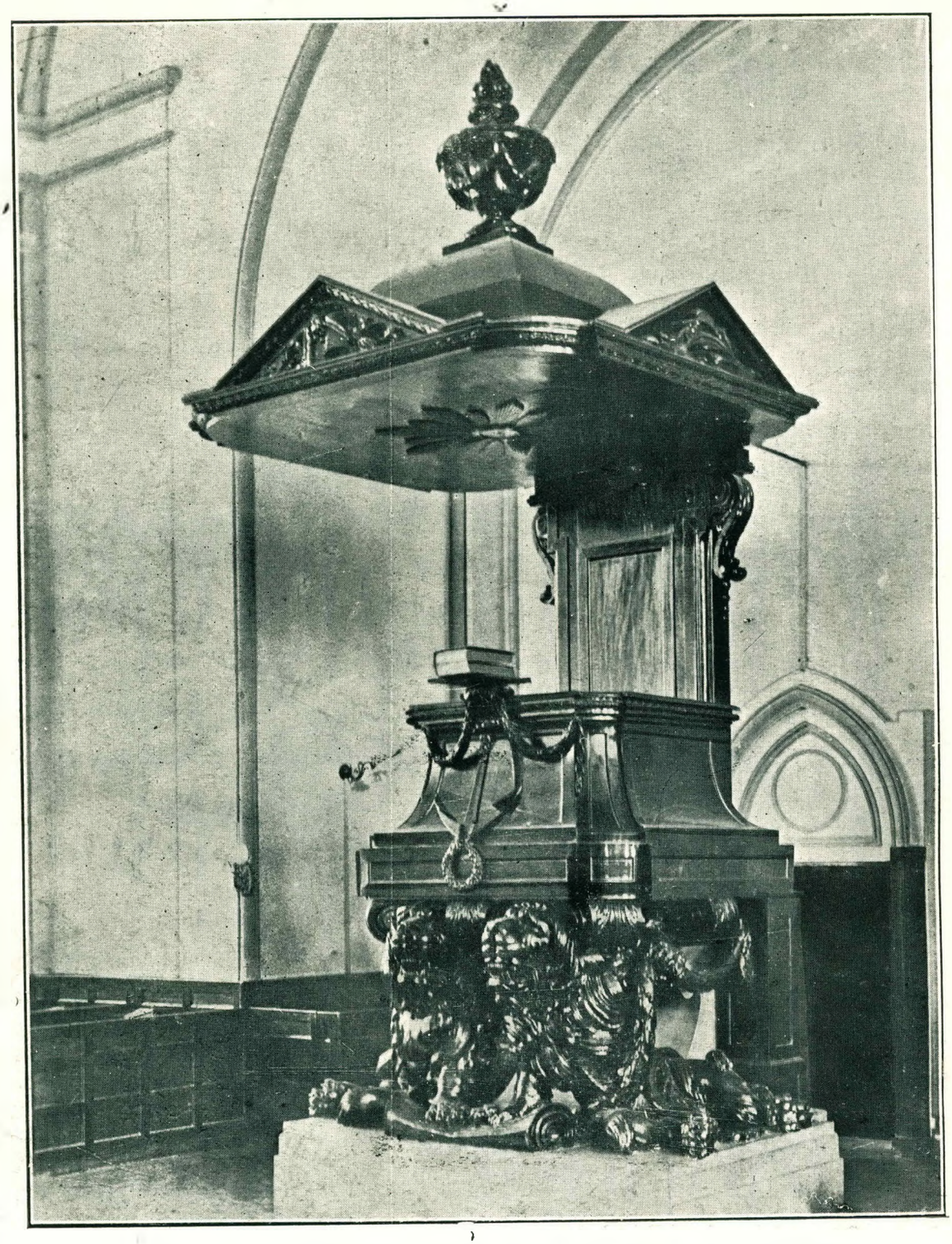


Second Premiated Design.—Cowin & Powers, F.R.I.B.A.

CLEWER GARDEN TOWNSHIP.



First Premiated Design.—Harold Porter, Johannesburg



Pulpit in the Dutch Reformed Church, Adderley St., Capetown,—Anton Auryt.



In the Old Supreme Court Buildings, Capetown.—Anton Anrÿt.

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