

# SOUTH AFRICAN ARCHITECTURAL RECORD

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THE JOURNAL OF THE CAPE, NATAL, ORANGE FREE STATE AND  
TRANSVAAL PROVINCIAL INSTITUTES OF SOUTH AFRICAN ARCHITECTS  
AND THE CHAPTER OF SOUTH AFRICAN QUANTITY SURVEYORS.

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CHURCH OF THE KNIGHTS OF THE HOLY CROSS, PRAGUE, ABOUT 1620

# CZECHOSLOVAK ARCHITECTURE, 1500-1800

## 2. BAROQUE ARCHITECTURE, 1600-1700.

By Dr. L. B. Kreitner.

Late Professor of History of Fine Art, Masaryk People's University. Lecturer at Victoria College, Prague

The seventeenth century was for Europe in general and for Czechoslovakia in particular, especially for its western part, Bohemia, a period of important political, social and psychological change. At the very beginning, 1600-1621, it was a revolutionary epoch, with the uprisings against the Hapsburgs and the Church, which ended in the loss of the national and political independence. The Battle of the White Mountain, near Prague (1621), meant not only a political turning point, in as much as the Czech nation was henceforth for almost three centuries at the mercy of the Hapsburgs and their retinue, but it also created new conditions of economic, social and spiritual life, and a new social structure. These changes are clearly reflected in the architecture of the epoch following the revolutionary period. The period of the Thirty Years War is characterised by the establishment of the might of the new rulers, the foreign aristocracy and the Catholic Orders with their representative and utilitarian chateaux, churches and monasteries. The second half of the century, an epoch of consolidation, finds its expression in buildings of real Baroque monumentality. During that period the firmly re-established Church shows its might and wealth in huge reconstructions and new constructions of churches and monasteries, while the rich aristocratic landowners commission the best architects for the reconstruction of mansions in the country and palaces in Prague. Now the marked difference between chateau and palace becomes evident, and both develop in a characteristic manner. At the end of the century the wealthy citizens followed the example of the aristocracy by constructing new town houses and thereby changing the exterior appearance of the whole country.

The social changes affected the architecture also from an artistic point of view. The artistic changes touch both the structure and the relation between the architect and his plans. The architect becomes less dependent on the tradition and the traditional exigencies; he is an independent creator, aware of his own creative power. The geometrically simple plan of the Renaissance and the regular rhythm gives way to a new

architectural feeling of complex subjectivism and personality. The ideas of materials, form and space undergo also a radical change. At the end of the century the last remnants of the Renaissance tradition have gone and their place has been taken by creations freed from every schematic conception. Peaceful harmony has been displaced by movemented tension—the immanent law of Baroque architecture.

The epoch following the Battle of the White Mountain brought about the victory of the Italian tendencies in art. In the service of the new rulers the new architects carried to Czechoslovakia the ideological riches of the romantic Baroque, and in a short time they displaced almost every remnant of the older indigenous tradition and even the most recent Dutch influences. For a long time, for a whole century, the Italians become the only purveyors of architectural ideas; they satisfy the demands of Church and laymen, they bring the tendencies and even guild costumes of their home country into Bohemia so that scarcely any other ideas than Italian can be noticed in the architecture of the seventeenth century. In this respect there is no difference between Czechoslovakia and



1. Prague in 1612. Wood-carving in the St. Vitus Cathedral  
(Bottom left: St. Saviour Church before reconstruction; see also 6.)



2. A representative chamber, Valdštn Palace, 1623-1630.

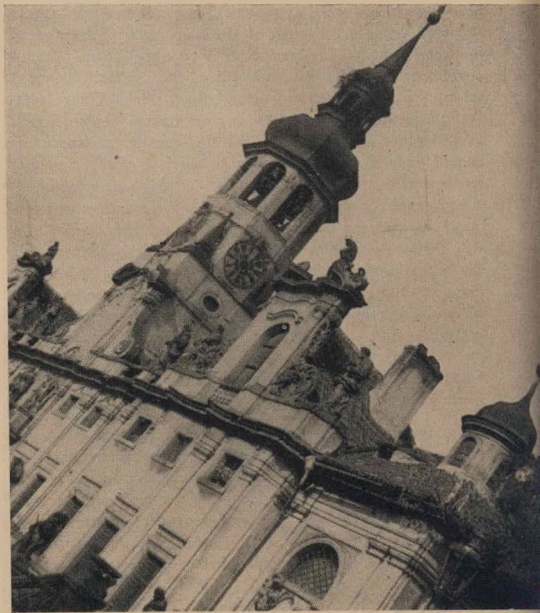


3. Loggia in the Valdštn Palace Garden, 1623-1630.

other Hapsburg countries, between Prague, Vienna and Salzburg. The North Italian tendencies prevail.

The task laid before these architects, for the most part, was not an easy one; especially was this true of Prague. Prague, at the beginning of the seventeenth century (1) was intrinsically Gothic. Even the vast Renaissance buildings in the midst of the narrow streets did not alter the mediaeval appearance. Thus the Baroque architect had, besides his original job of constructing a building, the business of town planning. On the cobweb of lanes and rows was, within a hundred years, superimposed a system of streets and squares which organically adapted itself to the existing and given conditions. The results were astonishing. Prague had become a Baroque city "par excellence."

A combined architectural and town planning task faced the man whom the imperial Generalissimo, Count Albrecht Valdštn (known also under the name Wallenstein) chose to construct his town palace in Prague and the huge mansion at Jicin. Andrea Spezza, probably from Leghorn, was entrusted with the erection of a palace at the foot of the Castle in the midst of an involved network of Gothic lanes. The mediaeval houses over the irregular ground plan were pulled down and a square was gained which gave Spezza the opportunity to isolate the Roman facade of the palace from its complex mediaeval surroundings. The massive three-storied facade is powerful, yet simple, and simple, too, are the courts, the walls of which are relieved only by pilasters. To the palace Spezza added a huge garden surrounded by a high articulated wall. The outer dimensions find their counterpart in the interior. The basic room is a magnificent hall which runs through two



4. Facade of the Capuchin Convent, Prague, 1621-1631.

storeys, decorated "al fresco" by Baccio di Bianca and with Italian stucco work. Adjoining are several representative chambers (2) planned to allow a perspective view. A gallery connects this part of the palace with the living quarters. The spacious garden into which the wonderful *Salla Terrena* (3) opens was decorated with the choicest sculptures by Adriaen de Vries, which, together with much other booty, were taken by the Swedish armies to Sweden in 1648. The palace, which was erected between 1623 and 1630, is a typical Baroque solution showing all the signs of programmatic planning. After Spezza's death in 1628, Niccolo Sebregondi was commissioned to continue the work in Prague and in Jicin under the supervision of the Florentine fortification architect, G. B. Pieroni de Galliano. In particular, the town Jicin had to be transformed into a fortress town, with the huge palace as focal point and radiating streets to connect the walls with the centre. The murder of Valdstyn in 1634 put an end to these intentions.

Valdstyn's example was followed throughout the country by the nouveaux riches and by the gentry. In Prague the Imperial Quartermaster General, Pavel Michna de Vacinov, had his palace constructed by Francesco Caratti and Giovanni de Capauli (1625-67), who introduced Palladio's ideas to Czechoslovakia. Domenico Canevale and Giovanni Orsi, from Northern Italy, were entrusted by Count Sternberk to construct the Capuchin Convent (1621-31), showing markedly Roman influence (4 and 5). Yet the biggest builders were the Jesuits, who established themselves in several towns and entrusted a score of Italian contractors and architects with the construction of churches and convents.

The architect of the Jesuits in Prague was Carlo Lurago (1608-70), whose name first emerges in connection with the reconstruction of the St. Saviour Church (6). The facade (1638-1648) is rather simple in its conception, articulated only by vertical double pilasters and the huge loggia. If it was not

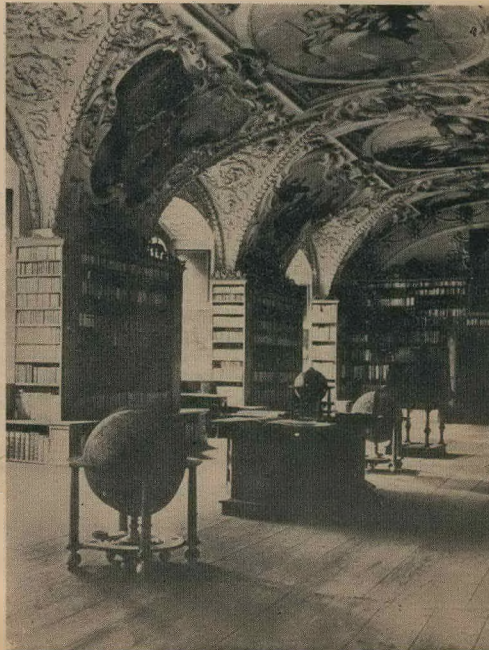


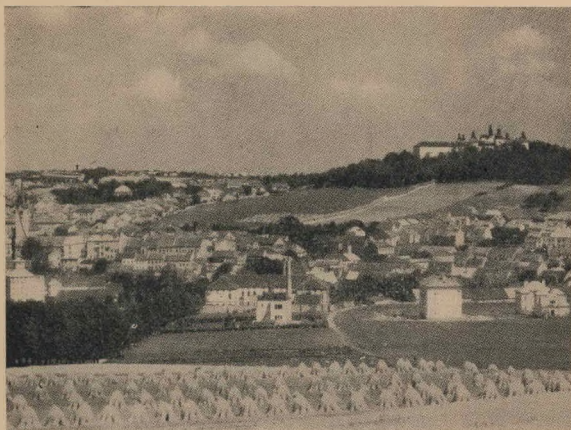
6. St. Saviour Church in Prague. Facade, 1638-1648.

7. Sciencia Hall, University Library, Prague, 1653-1668.



5. The Cloisters of the Capuchin Convent, 1621-1631.





8. Pilgrims Church and Convent at Píbram (about 1660).

for the sculptures on the balustrade the facade could be called bold. But the boldness concentrated in the mighty gable and octagonal crowning cupola give the church monumentality and makes it a distinctive feature of the contour of the old town. The church is a part of the vast system of the Jesuit College "Clementinum," which was also planned and constructed by Lurago. These buildings, which still house the University (the oldest in Central Europe, founded in 1348), were erected between 1653 and 1668, around four quadrangular courts. The facade of this most monumental Baroque building of Prague is articulated by huge bossed pilasters which perspectively appear the more imposing as the architect used the setting in acute and correspondingly obtuse angles. The interiors are rather simple, except for the library halls. The Central Hall is one of the finest in Europe; it lost its original appearance in the eighteenth century, but the smaller halls still show the characteristic proportions and decorations of the second half of the seventeenth century (7).

The Jesuits also had other colleges built by Lurago and his associates, Orsi, Canevale, Cereghetti, Cometa and Allio. This company of architects constructed the Church and the College in Breznice (1640-53), the Bishop's Residency at Hradec Kralové, and, above all, the place of pilgrimage at Píbram (8). This church and the surrounding buildings are an especially fine example of the architect's adaptability to the specific exigencies of landscape. Among Lurago's Czech collaborators, Ignac Bayer (1656-1733) is to be mentioned, whose forms are bold and sober, but well balanced. He is the author of the St. Ignatius Church at Jihlava, in Moravia (9).

Beside Lurago, an eminent place in the architecture of the

seventeenth century is taken by Francesco Caratti who was a follower of Palladio's tendencies. The Princes de Lobkowitz entrusted this architect with the construction of the chateaux in Roudnice. There Caratti used cleverly the given situation on a steep bank of the Elbe river by conceiving the building as a closed entity with an interesting movement silhouette. In 1665 he returned to Prague and was commissioned for the construction of the Cernin Palace (10). Here, too, Caratti shows himself as a pupil of Palladio. An old engraving (11) gives a clear picture of the situation the architect had to face. An originally Gothic square with irregular angles was closed on two sides by accentuated churches and colleges with movement facades. Against the facade of the Capuchin Convent Caratti set the mighty undulated facade of the palace. The conception is based on the effect of the contrast between the heavy horizontal rustic-work reaching to the level of the first storey, and the monumental verticals of the massive half columns which carry the weight of the broad roof cornice. This wholly unbroken rhythm gives the facade an imposing sense of a military column marching. The Palace was built between 1669 and 1678. In 1720, Ferdinand Max Kanka, a Czech architect, added a balcony to the centre of the facade, which accounts for the alteration of the rhythm of the basement.

As can be seen, for nearly three-quarters of the seventeenth century, it was the North Italian forms and decorations which prevailed in Prague and the country, and gave the architecture an entirely North Italian appearance. But before the end of the century a Burgundian architect, Jean Baptist Mathey (1630-1695) came to Prague and introduced Roman tendencies into the somewhat self-satisfied milieu. Originally



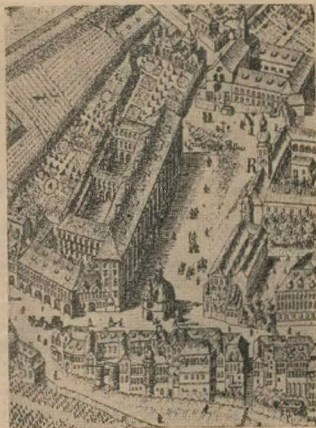
9. St. Ignatius Church at Jihlava (about 1670-1680).

Mathey was a painter, and only in Rome, where he studied, he became an architect. In 1673 Archbishop Count Jan B. Valdštyň called him to Prague to reconstruct the Archbishop's Residency. The new facade covering the entire building and dating from 1780 does not permit judgment of Mathey's portion. But his second work in Prague, the Toscana Palace, and above all the summer palace, "Troja," which he erected for Count V. V. Sternberk (1679-96) shows the strong individuality of the artist. Rich invention matched the mastery of forms based on Roman and French experience. Both Bernini and Fontana were Mathey's examples, and on the other hand he had the lucidity and logic of Chanteloup. The solution, especially of the Church of the Knights of the Holy Cross (frontispiece), was an innovation; there Mathey designs an elliptic dome to be the centre of an almost square structure. The tambour in its form depends on Fontana, but the facade, particularly the solution of the walls is a strange mixture of Italian and French. This simple articulation, with limited and rather flat modulation, is a characteristic feature of this architect, who tends, through simplicity, towards monumental expression. In his later works in Bohemia, the churches in Plasy, Duchcov and Horní Litvínov, Mathey shows himself a master of different forms, always used economically to attain the utmost expressiveness.

Mathey's forms and solutions were the very best examples for a new generation of architects who, at the beginning of the eighteenth century, initiated the glorious epoch of what is known in the history of architecture as "Prague Baroque."



10



11

10. Cernin Palace in Prague, 1669; and 11, Loreto Square in Prague—left, Cernin Palace; and right, Capuchin Convent. (Detail of engraving from the beginning of the XVIII Century).

Photos : Centropress.

# THE INSTITUTE OF SOUTH AFRICAN ARCHITECTS THE CHAPTER OF SOUTH AFRICAN QUANTITY SURVEYORS

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## THE CENTRAL COUNCIL

### THE PUBLIC SESSION

The opening session of the 1944 Annual Meeting of the Central Council, held on Thursday and Friday, April 27th and 28th, 1944, took place in public in the hall at New Kelvin House, Johannesburg.

The meeting was very well attended, and the visitors included Dr. H. J. van Eck, Chairman of the Social and Economic Planning Council; Dr. J. H. Dobson, D.S.O., President of the Associated Scientific and Technical Societies; the President, the Organising Director, and other members of the National Federation of Building Trade Employers; also representatives of the "Star" and "Rand Daily Mail."

After the President-in-Chief had extended a special welcome to those present, he read a cable of greetings from Mr. José Cortez, of the Brazilian Institute of Architects, who represented that Institute at the last Annual Meeting. Dr. Dobson then addressed the meeting on behalf of the Associated Scientific and Technical Societies and conveyed their best wishes for the success of the conference.

The President-in-Chief read his address on the subject of the Building Industry and its future.

After Professor Thornton White had proposed a vote of thanks to Dr. Dobson, Dr. van Eck spoke on the Social and Economic Planning Council, its activities and its relation to the professional bodies.

## ADDRESS OF DR. J. H. DOBSON, D.S.O.

### PRESIDENT OF THE ASSOCIATED SCIENTIFIC AND TECHNICAL SOCIETIES OF SOUTH AFRICA

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Mr. President-in-Chief, Ladies and Gentlemen, I am greatly honoured and thank you for your kind invitation to be present at this Annual Meeting of your Central Council, and in my capacity as President of the Associated Scientific and Technical Societies of South Africa, with a membership of approximately 5,000, I bring you greetings and best wishes that your meeting to-day will be useful generally to your profession and that you will be able to solve some of the unprecedented difficulties and conundrums arising out of present war-time exacting conditions.

I regard your invitation to be with you to-day as outward and visible evidence of the desire of architects to associate more and more with the other professions represented by the Associated Societies, and your representative on our Controlling Executive, like Professor Pearse and Mr. Haddon, have taken an active part whenever it has been desirable to act in the interests of professional men generally.

The practices of Architecture and Quantity Surveying are enshrined in a closed profession which prevents charlatans



and unqualified persons from inflicting their machinations on the public, but at the same time your controlling body imposes upon qualified architects commensurately heavy responsibilities to maintain the dignity and status of their calling and to exercise a high ethical standard in their relationships to each other, as well as to the public whom they serve.

In the practise of his profession, the architect is a technician dealing with the science of building and co-ordinates the work of other technical and engineering sections such as heating and ventilation, electrical work, acoustics, etc., etc. The architect is also a humanist subservient to the general needs of mankind, with which he has to blend his aesthetic impulses by virtue of which architecture becomes art.

The calling of an architect has more gratifying features than in any other technical profession because his greatest achievements may live to be viewed and admired for generations.

The engineering profession has made attempts spread over 30 or 40 years to emulate the example of being organised in a closed profession, but having regard to the impossibility of demarcating the work of the artisan from the professionally trained engineer, all attempts have proved abortive.

The scope of the architect's work has now been extended to town planning, and it is gratifying to the public of South Africa to know that your Central Council has taken active steps to adequately render valuable service in this relatively new sphere, both in University education and the formation of a national town planning organisation.

Never before in all previous history has the architectural profession been called upon to render service to such a torn, tattered and distracted world, arising from this second world war, in which the intensity of devastation is as never previously imagined, and this is made infinitely worse because of the shortage of materials to a degree far beyond human conception—in these respects South Africa has indeed been extremely fortunate, but the chaotic conditions of South Africa's housing problems for both Europeans and non-Europeans, as well as the urgent immediate necessity for proper town planning, call for a powerful lead from the architectural profession to co-ordinate their work with builders, contractors, merchants

and industrialists, as well as to make the best of the relationships between employers and employees, and to direct national efforts towards a reasonable distribution to each of the four Provinces of the supplies and materials, and the best possible application of both European and non-European labour on a preconceived five or seven years plan, so as to maintain uniformity of employment as much as possible. In these respects, I have no doubt there will be suitable liaison between architects and our National Social and Economic Planning Council, of which our esteemed friend, Dr. van Eck, is the Chairman and powerful driving force.

The architectural profession embracing town planning is commanding greater and still greater public esteem, and the services of its members are being increasingly requisitioned, and must be requisitioned in the majority of important constructive projects.

Speaking as an engineer and an ex-Johannesburg departmental head, and having regard to the tremendous responsibilities that now devolve upon the architectural profession, it is perhaps appropriate that the pros and cons be investigated whether the municipal architect in the larger towns and cities should be raised to a higher status separate and distinct from the City Engineer's Department, but, of course, closely linked with it. This investigation is perhaps all the more necessary when it is recognised that the responsibilities of the City Engineer in the larger towns and cities have been also enormously increased during the last ten years. Prevailing conditions demand prompt decisions by those who are actually specialists in architecture, town planning and housing.

South Africa is fortunate in having the architects of the four Provinces co-ordinated and amalgamated in your Central Council, and as the representative of the constituent bodies of the Associated Societies, I express confidence that your organisation will be capable of rendering the best possible service under the exceedingly difficult conditions now prevailing.

Mr. President, Ladies and Gentlemen, I again thank you for your kind invitation to be with you to-day, and I express the hope that your Annual Meeting will prove of benefit to your profession in particular and to South Africa in general.

## SUMMARY OF ACTIVITIES OF THE CENTRAL COUNCIL AND ITS EXECUTIVE COMMITTEE DURING THE YEAR 1943-1944.

**PERSONNEL OF THE COUNCIL.** During the year under review the personnel of the Central Council was: Cape Provincial Institute's delegates; Mr. K. V. Commin and Professor L. W. Thornton White: Eastern Province; Mr. J. F. Brinkman: Natal Provincial Institute; Mr. B. V. Bartholomew:

O.F.S. Provincial Institute; Mr. W. W. Tonkin (after his death, Mr. Fredk. W. Massey); Transvaal Provincial Institute; Messrs. Douglass M. Cowin, S. C. Dowsett, Norman Eaton, D. S. Haddon, N. L. Hanson; Chapter of S.A. Quantity Surveyors; Messrs. P. M. Roos and T. Moore: Government Nominees;

as Architect, Mr. F. W. Mullins; as Quantity Surveyor, Mr. R. J. C. Prentice.

President-in-chief: Mr. D. S. Haddon. Vice-President-in-chief: Professor L. W. Thornton White.

**MEETINGS.** In addition to the Annual Meeting of the Council held in April, 1943, a special meeting was convened in November 1943, to deal with the Railway Hotels Competition. Of the Executive Committee, there were 14 meetings during the year.

**NEW REGISTRATIONS AND ENROLMENTS.** During the year there were 45 registrations as Architects, and 14 enrolments as Quantity Surveyors. Of the newly-registered Architects, 27 joined the Transvaal Provincial Institute, 10 the Cape Provincial Institute, and 8 the Natal Provincial Institute. Three of these new members are on Active Service, and four are ladies; 13 possess the Diploma in Architecture of the Witwatersrand University, 9 the Degree, and 6 the Certificate in Architecture of that University; 4 possess the Degree of the University of Cape Town, 1 the Diploma, and 1 the Certificate of that University; 7 have the A.R.I.B.A. or equivalent qualification, 3 passed the Special Qualifying Examination for persons trained outside the Union, and 1 passed the Modified Examination specially provided for in the Act. Of these 45 new members, 15 joined as Practising Members, and 30 as Salaried Members.

Of the 14 new Quantity Surveyors, 5 are on Active Service; 12 joined as Salaried Members, and 2 as Practising Members. Six hold the Diploma in Quantity Surveying of the University of Pretoria, 2 the Degree of that University, 1 the Diploma of the Witwatersrand University; 4 have passed the Final Examination of the Chartered Surveyors' Institution of Great Britain, and 1 passed the Special Qualifying Examination for persons trained outside the Union. Two of the new Quantity Surveyors are in the Imperial Service.

**MEMBERS WITH THE MILITARY FORCES.** The work of the Institute's and Chapter's Hon. Liaison Officers, Mr. Douglass Cowin and Mr. Peter Roos, can only be referred to here from the point of view of appreciation of their difficult and untiring efforts to improve the conditions of members in the Forces, and, where circumstances have permitted, to obtain the release from service of several members and/or assistants.

In addition to the work of the Liaison Officers, the Central Council is itself mindful of the welfare of members on Active Service: (1) Special provision in their interests was made in the Railway Hotels Architectural Competition; (2) A memorandum was submitted to the Parliamentary Select Committee on Army Pay; (3) Members on Active Service who apply for the remission of their annual subscriptions are at once granted such remissions; and (4) the Institute was an early party to the policy of Governmental assistance to members returning from Active Service.

## NOTIFICATION TO PUBLIC OF MEMBERS RETURNING FROM ACTIVE SERVICE TO PRIVATE PRACTICE.

The Provincial Institutes and the Chapter are empowered to insert one advertisement in each of the local newspapers announcing the resumption of practice by a member returning from Active Service, the cost of such advertisement to be borne by the member concerned: provided that no member may himself insert any such advertisement, and that copies thereof are forwarded to the Council.

**CLASSIFICATION OF MEMBERS.** A good deal of consideration has been, and must still be given, to the present classification of members, viz., Practising, Salaried and Retired, with especial reference to the merits and demerits of abolishing the distinction between "Practising" and "Salaried" members. A referendum of all members of the Institute and Chapter may well be required before a decision is taken on this important issue.

## GOVERNMENT WORK.

**NEW RAILWAY STATIONS.** It is gratifying to be able to record that Practising members have been engaged as architects in respect of the new railway stations at Cape Town, Durban and Port Elizabeth. The selection of these architects was determined by a ballot procedure organised by the respective Provincial and Local Committees, the final decision being made by the Railway Administration.

**BUILDING FOR MINISTRY OF TRANSPORT, PRETORIA.** This work also has been "given out" by the Railway Administration, which has engaged one of the three groups submitted by the Transvaal Provincial Institute, after a referendum.

**RAILWAY HOTELS COMPETITION.** Despite the Institute's strong representations and recommendations, the Railway Administration would not agree to an open, Union-wide competition; and, because of the insistence of the Railway Administration, the Institute acquiesced in the holding of a limited competition, 10 architects or groups of architects to be selected therefor. When the names of the 10 selected architects or groups of architects were submitted, the Railway Administration then notified the Institute that its Conditions of Competition were unacceptable. Negotiations are still proceeding.

**P.W.D. ARCHITECTURAL WORK.** As the result of negotiations initiated by the P.W.D., a Liaison Committee, representative of the P.W.D. and of the Institute, has been established; the functions and powers of the Liaison Committee being "the most satisfactory allocation of the work amongst members of the profession, and the most satisfactory conditions under which this work can be performed."

As urgency has once again, in these abnormal times, been an outstanding factor, a provisional agreement has been arrived at for a period of six months.

PROCEDURE RE SELECTION OF MEMBERS FOR SPECIFIC WORK. Attention is being given by the Council to the drawing up of rules and procedure governing the nomination of architects and quantity surveyors, for the guidance of Provincial and Local Committees, when approached by promoters and/or clients.

#### OTHER ARCHITECTURAL COMPETITIONS.

A Union-wide, open competition has been promoted by the Johannesburg Municipality for designs for non-European houses at Orlando Extension, on the basis of the Institute's Conditions of Competition.

The Institute has been approached to nominate an architect-assessor as one of a jury of three assessors, in connection with a competition for a proposed Coloured housing scheme on Cape Flats. Nominations have been submitted, and the draft Conditions of Competition are awaited.

NATIONAL PLANNING. Negotiations are proceeding with the Social and Economic Planning Council, aiming at a comprehensive survey of the building industry in South Africa, with the object of furthering post-war reconstruction.

TOWN PLANNING. Efforts have been made, and are nearing completion, for the establishment of a South African Town Planning Association, on national lines.

On the suggestion of the Institute, the Universities of Cape Town and the Witwatersrand have agreed to establish post-graduate courses in Town Planning.

BUILDING CONTROL. Representations have from time to time been made by the Institute urging a revision of Building Control restrictions and procedure, and more especially a closer liaison between building control and the

Institute. The Institute has a seat on the Building Controller's Advisory Council, four meetings of which have been attended by the Institute's delegate during the year. The Institute's representative has, with other members of that Council, continuously urged the Government to formulate a national building construction policy bearing in mind the pressing need for housing the lower income groups, and the provision of hospitalisation, schools, and other public buildings; and, in view of the alarming increase in building and land costs, has also urged the Government to consider the assumption of responsibility in this direction so as to make it possible to proceed with building schemes urgently required.

"CLAUSE 3 (c)." The Central Council unanimously decided not to proceed with "Clause 3 (c)," in terms of its original wording, but, instead, to revive the question of professional propaganda, and to investigate all the implications surrounding the principle of protecting the work of the architect and quantity surveyor.

THE "WALKER AWARD." As the validity of the Walker Award will be tested in the Supreme Court in the near future, at the instance of the Federation of Master Builders, the Institute can only await, with deep interest, the Court's decision.

MR. T. MOORE. It is but fitting that this resumé should contain a warm tribute to the unique record of one who was, until a month ago, continuously a member of the Central Council and its Executive Committee since their creation in 1927-1928. He will long be remembered for his untiring devotion to, and tenacity of purpose for, the welfare of his profession, now the firmly established Chapter of Quantity Surveyors.

## ADDRESS OF THE RETIRING PRESIDENT-IN-CHIEF MR. D. S. HADDON

Dr. Dobson, Dr. van Eck, Ladies and Gentlemen:

To-day, at the close of my year of office as President-in-Chief of the Institute, I have chosen to address you on the Building Industry and its future.

It is perhaps fortunate that owing to the "Walker" Award I cannot fairly be accused of attempting to break up an established order of things; that has been done for me!

We find ourselves part of an industry which has been thrown into confusion by the conduct of its own separate units, and if the "Walker" Award does nothing else it has caused us to pause and to turn an introspective eye on the industry as a whole.

Speaking for the Institute, architects and quantity surveyors are conscious more of frustration than achievement. Those ideals which have animated us from ancient times seem as far from fulfilment as ever. No doubt Sir Christopher Wren had similar feelings when his plans for the rebuilding of London after the Great Fire were found to be doomed by the insufficiently wise "powers that be." Nevertheless, as in those days we live in hope.

That that hope is not without substance is manifest in the interest with which the building industry is looked to to solve the ever-increasing problems before it. Make no mistake, only the industry itself can establish order out of chaos. Government decrees and controls cannot.

Let us therefore briefly consider the conditions in which the industry finds itself. It must be admitted that as an entity it lacks cohesion, co-operation and concerted action. The artisans and building employers are pulling in opposite directions. The position of the merchants and manufacturers has not been adequately considered in relation to the rest of the industry, while we, the professional side of the industry, engrossed in our own future, wait for the storm to subside.

Possibly the "Walker" Award may prove to be a sufficient "spur" to serious endeavour in clearing the difficulties which beset us. The discipline achieved overseas by the unprepared nations has accomplished miracles. Self-imposed discipline, in my opinion, is the solution for the building industry in South Africa.

The artisans, whose skill and efficiency has been progressively lowered by the dilution of labour due to influx of poorly trained and in some cases completely untrained workmen, must be disciplined by themselves through their trade unions to an adequate and reasonable output of work of a high average standard commensurate with a fair wage, as the standard of building costs cannot be measured by the wages paid, but only by the speed and efficiency of the building workers. Furthermore, the artisans cannot fear unemployment in the future if a rational scheme for building in South Africa is adopted ensuring, among other things, continual employment of the artisan. Native labour must be trained and used as quickly as possible to assist in building, particularly in building for the Natives. There can be no cavilling at this on the part of anyone, least of all the European artisan, whose whole future appears to me to depend on his ability to train and use the Native in a proper way in the industry.

Coming to the builders and contractors themselves. Organisation collectively and individually is sadly lacking. To execute the very urgent military building programme earlier in this war, the builders proved that they could organise collectively to perform stipulated work in a prescribed time. That this was achieved indicates that for the present housing position and general shortage of other buildings an organisation can be developed wherein the industry can function collectively. Building work, particularly housing, can be concentrated in areas under groups of builders so that a sufficient labour force can be evenly distributed over a series of adjacent buildings. A pool of labour, working to a definite plan so that one operation follows another with no loss of time, and consequently wages, to the men, will ensure in addition that the manufacturers and suppliers of building materials will be able to build up stocks and deliver without loss of time the necessary building materials. The innumerable delays now and for some time past evident in this aspect of building (the ultimate cost of which delays, I must point out, was borne by the building owner) will disappear, and what is one of the vital factors in high building cost will be eliminated.

To the professions of architecture and quantity surveying in the nature of things, falls the duty of correlating the needs

of the community in the field of building. In consequence the organisation of a rational execution of the programme devolves upon them. It is true that all the building work proposed by the Government, Provincial Administration, local authorities and private organisations and individuals is known to the professions individually, which means piecemeal. Individually—and I emphasise individually only—the professions and the professional departments of the bodies mentioned above know the extent of the building work required in this country and its estimated cost. It is surely not impossible to correlate this information and set up a system whereby this work could be charted and planned for execution without a repetition of the booms and depressions so evident before the war and to a certain extent during the war.

The manufacture and importation of materials would be undertaken in good time and the requirements of the different regions of this country served in an established order, the building firms concentrated in suitable areas, and the labour force distributed in the most economical way.

It is not an impossible "Utopia" that I seek, but one reasonably sure of accomplishment. The driving force, however, must be provided from within the industry and by every section of it. I plead, therefore, that the Government of this country cease to attempt to solve national problems in regard to the building industry by acting on unco-ordinated and insufficient advice.

It must be clear, of course to everyone that sufficient satisfactory housing, together with the vast leeway of other building to be carried out, cannot be satisfactorily undertaken without control—a control of materials and labour directed to satisfying the vital needs of the country.

One only needs, however, to consider the present system of control by the Government to perceive that unity of purpose for the good of the people cannot be achieved thereby. The industry is controlled to-day by:—

The Minister of Public Works as Building Controller.

The Minister of Labour through the Controller of Manpower.

The Minister of Economic Development through the Controllers of Building Materials, Iron and Steel, Timber, Non-Ferrous Materials; and finally we have under the Minister of Social Welfare the Director of Housing.

The result is that the Controller of Building is forced to control the industry at the dictates of the manpower and commodity controllers, with the added problem of satisfying the needs of the Director of Housing. In the words of Mr. Hanson, Past-President of the Transvaal Institute, the Controller of Building only acts and can only act as an erratic brake on the industry. The time has come for all sections of the community to stop urging the Government to take the initiative. The problems are too great and the community must assist, and must be allowed to assist, the Government in setting things in order.

We know that it is proposed by the Minister of Social Welfare to establish a housing commission to control housing for the lower income groups of the community. From the published information, so far as we can judge, the industry is to have no direct say in so vital a matter. At the best it appears that its representation will be confined to one member, namely, an architect or municipal engineer, and from all the evidence we have, to the contrary, there is no indication that the personnel of the commission will be arrived at by consultation with the interested sections of the community.

In respect of the building industry, a central organisation for building must be set up with Government consent and support.

Its primary duty, and perhaps its only duty for some years to come, must be to evolve and perfect a system which will collect and collate the building needs of the people, control the execution of the work evenly and in established priorities over the whole country, to the end that efficiency and speed will result; that labour will be continuously employed; that Native labour will find a proper place in the industry; that the present mere listing of building requirements will cease, and that a planned order of things will come into being.

Such an organisation will bring Governmental and private work into their proper perspective, prevent overlapping and waste, and by intelligently planned propaganda and educational methods direct public opinion to expect and demand good and sound building.

Such a council and councils representing other sections of the

community should be sub-sections of the Social and Economic Planning Council, serving and advising the Social and Economic Planning Council just as that Council serves and advises the Government of the country. In brief, let the Social and Economic Planning Council be the nucleus and governing head of a series of bodies composed of members from the sections of the community concerned who are best fitted to advise the Council, and through it the Government, on their particular part of the country's life.

In conclusion, I feel I must refer to one activity of the Central Council of this Institute which is of national importance, namely, Town Planning. I am glad to say that this Institute has proposed to the Universities of the Witwatersrand, Cape Town and Pretoria, that a post-graduate course in Town Planning be set up. The Universities have agreed, and the two-year course at the Witwatersrand has already commenced; a similar course, I understand, will be instituted by the University of Cape Town next year.

The Town Planning Association of the Cape has, with the assistance of this Institute and other professional bodies, taken the first step towards the foundation of a National Town Planning Association to promote town planning education and generally investigate all aspects of town planning in this country.

I venture to say that these steps have been taken just in time, and that within two years this country will be able to make use of men trained and equipped in this all-important branch of planning.

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Dr. H. J. van Eck addressed the meeting following Professor L. W. Thornton White, who in proposing a vote of thanks to Dr. J. H. Dobson, raised certain questions concerning the broader issues of planning and the Institute's responsibilities in that regard. In thanking the meeting for the invitation which had been extended to him as Chairman of the Social and Economic Planning Council, Dr. van Eck gave the assurance that the Planning Council was looking to the professional bodies for that assistance they were best qualified to give.

"The whole machinery of planning in South Africa was still in the experimental stage—too much in the experimental stage," said Dr. van Eck. The Prime Minister had described the Social and Economic Planning Council as an experimental body. It was originally conceived as a body to survey the economic structure of the Union as a whole, and not so much to deal with specific questions or problems of implementation. He considered it essential that that function should be taken over by the various bodies most intimately concerned. It was

quite impossible for the Planning Council as it was at present constituted, with only a part-time membership and a small staff, to take over the whole planning function, for which purpose a far more cohesive organisation was required.

Dr. van Eck, in referring to the First Report of the Social and Economic Council, in which recommendations for the co-ordination of public works policy had been put forward, on which, owing to legal difficulties, very little action had been taken, stated that it was strongly felt, nevertheless, that a definite organisation should be established to deal with specific aspects of planning. The National Housing and Planning Commission had been established, but, he stressed that the planning aspect was the important one—Regional Planning more than Town Planning.

Dr. van Eck again assured the meeting that the Planning Council would be only too happy to collaborate with the Institute, so that the functions of the Social and Economic Planning Council could be strengthened to enable it to really serve the country.

# A CITY HALL FOR CAPETOWN REPORT

PLANNING AESTHETICS ACOUSTICS

By K. Hall Gardner

THIS IS VOLUME THREE WHICH CONCLUDES AN ARCHITECTURAL THESIS, "A CITY HALL FOR CAPE TOWN."

## A Definition: The Proposed City Hall.

Throughout this thesis the term "City Hall" is used to mean a centre for public assembly other than the theatrical, concert, etc., Council and Mayoral meetings and functions, and accommodation for the central staffs of the Administrative Departments, including facilities for the public in its dealings therewith. The City Hall is to be a unit in the Civic Centre, forming a link, in practice as well as function, between the "leisure" and the "working" portions of the City.

### CHAPTER I.

#### PLANNING: HOW THE SCHEME WORKS.

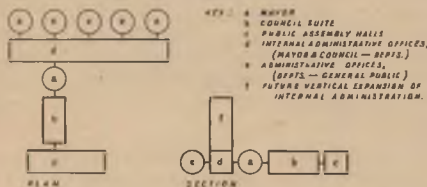
"Where am I? Metaphysics says  
No question can be asked unless  
It has an answer; so I can  
Assume this maze has got a plan.

If theologians are correct,  
A Plan implies an Architect;  
A God-built maze would be, I'm sure,  
The Universe in miniature."

—W. H. Auden.

#### THE SCHEME IN OUTLINE.

In general principle, and as far as possible in detail, the findings of Parts I and II of the research on the subject of planning requirements have been embodied in the design. The proposed disposition of the various units may be summarised diagrammatically as follows:—



In greater detail, the scheme will be readily understood if the following paragraphs are read concurrently with study of the design drawings (Chapter II).

#### MAYOR AND COUNCIL BLOCK.

It has been assumed that the Mayor's position will be an increasingly important one, approximating more to that of the American City-Manager than to his present primus-inter-pares status. The Mayor's apartments have, therefore, been treated as the fulcrum or centre of gravity of the whole scheme.

The Mayor's Parlour, opposite which is that of the Mayoress, is placed on the first floor over the covered parking area for Mayor's and Councillors' cars, and is readily accessible therefrom by either of two alternative vertical circulations. Towards the S.W. it is directly linked, through the Mayor's Secretary's office, to the office of the Town Clerk, and indirectly, through his department, to the public. Towards the N.E. it directly adjoins the Council suite, and is indirectly linked, past the Council Chamber, to the assembly halls block.

The Council suite is entered through a small ground-floor entrance hall, either from the road which passes under the Council Chamber or from the Councillors' parking area. Lifts and staircase from this hall lead up to the first-floor members' lobby, on the S.W. side of which are the members' robing and retiring rooms and a small Press room [and access through to Mayor and Town Clerk]; on the N.E. side is the Council Chamber, entered up a short flight of steps and through access passages with cut-off doors (note that these passages also lead through to the assembly halls block). The Council Chamber has been acoustically designed (see Ch. IV) for maximum efficiency for debating purposes, this dictating the various materials used as finishes. Following up the same vertical circulation, on the S.W. side of the second-floor landing are six committee rooms, four of which are designed en-suite, with sliding-folding partitions separating them or throwing them together as required; the corridor between the

committee rooms gives direct access to the committee clerks' branch of the Town Clerk's Department; on the N.E. side of this landing is the blank wall of the upper part of the Council Chamber, but half-a-flight further up, a mezzanine landing gives access to the Press gallery. The separate and greater part of the gallery is for the use of the general public, and is reached by means of a direct and entirely separate external spiral staircase. The third and final floor is for the use of members only, and consists of a library and reading room opening off the main landing, and, off the mezzanine landing further up, the members' dining room and open terrace over the Council Chamber. Food is served through a servery by means of food-lifts from the large banqueting hall kitchen directly underneath. From the members' terrace, a small staircase down and a covered passage give members private access directly into the public banqueting hall.

The whole of the Mayor-Council block is intended to form a logical and functional link between the administrative and the public assembly parts of the scheme. Its position between these two larger blocks is such that it is on the quietest part of the site as regards external traffic and street noises, and also that it would have attractive views from both sides over the gardens, etc., on the site. Most of the more important rooms have been placed so as to have a sunny N.W. aspect. Provision for a small amount of expansion has been made by designing the columns to carry two more than the indicated number of floors, and by roofing the indicated top floor with reinforced concrete slabs with an easily moved pitched roof over.

#### ADMINISTRATIVE DEPARTMENTS BLOCK.

The administrative block consists of accommodation for the five departments in the form of five separate parabolic structures, each having a public entrance porch (extending over the full width of the pavement) which leads up a short flight of steps, through an entrance and lift-hall, into a large ground-floor hall, showroom, or general office, which is two floors in height and is surrounded by smaller offices for branches requiring very direct access by the public. The vertical circulation from entrance hall gives public access at first-floor level to a gallery around the upper part of the main hall, off which open a second set of similar smaller offices; and, at second and third-floor levels, to central corridors, with offices on either side. All offices mentioned so far are to accommodate those branches of each department which deal chiefly with the general public, their being placed on a lower or higher floor in proportion to the importance or otherwise of public access.

With the exception of the ground-floors, where pedestrian ways cut through to give access from street to the gardens, etc., on the site, all floors of the five "parabolas" are linked by a continuous block (which we shall hereafter term the "fin") which houses the purely internal organisation of each department, i.e., those offices which have little or no direct

business with the general public; and also, in the case of the Town Clerk's Department, those offices which require close and efficient contact with the Mayor and Council suite. The foundations and columns of the fin are designed to carry an ultimate total of twenty floors, as this would provide the total estimated floor area required for Cape Town's administrative organisation when her population reaches 2,000,000 (i.e., in about 1990 or 2000 A.D. at present increase-trends: see Part II of Research P.66). The rest of the scheme (assembly halls, etc.) has been designed with an average or intermediate stage of Cape Town's expansion in mind, namely, a population of 1,000,000 (in circa. 1970); and a five-floor height of fin (equal to total height of parabolas, which are not designed to be expanded) would make up the estimated administrative floor area required at this intermediate stage. As the departments expanded between the intermediate and the ultimate stages, floors would be added on to the fin, enabling public offices to occupy more of the parabola, semi-public offices to move horizontally over into floors 1 to 4 of the fin, and non-public offices to rise into the comparative isolation of the upper floors of the fin. It is suggested, however, that the ultimate 19th floor of the fin would provide very attractive accommodation for any new enterprises (such as restaurants with view-terraces, clubs, or night-clubs) which the Municipality might by 1990 be imaginative enough to undertake.

To complete the elucidation of the general planning of the administrative blocks, mention must here be made of certain other points. The disposition of the five departments in the five parabolas is based on their functional inter-relation with one another; for instance, in the horizontal plane the Town Clerk's Department has been treated as the centre of gravity of the administrative blocks, just as the Mayor's Parlour is the centre of gravity of the scheme as a whole. The fin has separate staff (or internal administrative) entrance and lift-halls on the opposite side to the public entrances from the street. The whole administrative block is structurally a system of R.C. columns, beams, and floor slabs, there being no weight-bearing walls. All floors are sub-divided into offices by means of light, soundproof partitions, thus providing unlimited flexibility in size and shape of offices, and making alterations in partitioning to meet future changes in organisation a matter of comparative simplicity. The basement to each parabola and its section of fin, with the construction of simple ramps, can at any time be made accessible to cars and vans for use as staff parking-area and/or base-garage for departmental vans, or it can be used for storage, or any other purpose according to individual departmental requirements. The top floor of each parabola and its 5th floor section of fin—it is here presumed that in 50 years' time we shall have a different conception of what constitutes ideal working conditions—is entirely devoted to a terrace and staff-rooms of various kinds, including lavatory and cloak-room accommodation. The staff would come down to this floor from the fin, and up to it from the parabola; thus in a functional sense it emphasises the vertical transition from

public to non-public floors, while physically it is the centre of gravity in the vertical plane of the whole administrative block, and therefore is readily accessible to all members of the staff. With regard to sanitary accommodation, as the present tradition of a vertical stack with lavatories for each sex on alternative floors is so universal in tall office-buildings, it might be advisable to state here the two main reasons for the concentrated lavatory system proposed in this case: firstly, the fact that each member of the staff of the present City Hall solemnly carries a key to the lavatories, which are kept locked, as this has been found to be the only method of keeping undesirable persons from wandering in from the street and using the staff-lavatories, which are on the ground and first floors; and secondly, that the economy in number of fittings, the ease of maintenance, and the generally increased efficiency resulting from concentration would more than offset the extra staff-time and lift-loading—the lifts are in any case more than adequate in number, and would be of a high-speed type. This staff-floor as a whole would be strictly closed to the public, and it is for this reason that the public lift service stops short at the third floor. Members of the staff would, therefore, either climb the last flight, or use the non-public lifts.

It is impossible to over-stress the importance of the question of expansion, and the form of the whole administrative block is the honest expression of an attempted solution to this problem. With the exception of the Town Clerk's Department (which is considerably smaller), the five departments are at present remarkably similar to each other in size; while it is quite certain that all departments will expand, they may do so at differing rates—this difficulty has been overcome by the continuity of the fin, for the division between departments may be anywhere along its 800 ft. corridor and at different points on different floors; thus, for example, one department can occupy a very large semi-public area on the lower floors and a smaller non-public area on the upper floors, while the adjacent department does the opposite; or one department may occupy twice the floor area of its neighbour. The only remaining expansion problem is that which would arise in the eventuality of the creation of a new department as a result of some epoch-making technical advance equivalent in importance to the discovery of electricity in 1799. This might equally possibly be offset by the merging or obsolescence of one of the existing departments. If, however, the need should arise for a new department or departments, it could be met by extending the block through a right angle, thus:—



—an arrangement which is as workable but inorganic as the creation of new departments is possible but remote.

It should be noted that from the point of view of the general public the five departments, with their separate entrances

(each of which, besides being clearly labelled, sports an escutcheon bearing a symbol of the scope of its activity) are clearly defined, this being highly desirable in that it avoids the frequent fault in city hall planning which results in a continuous stream of people wandering through one department in search of another, and also avoids more legitimate but equally undesirable staff cross-circulations. While to the public the departments are thus clearly separate, their internal organisations are very closely linked indeed, and the writer hopes that this arrangement would result in better co-operation and co-ordination of the work of the different departments, lack of which, as he has attempted to show in Part I of the research, is the outstanding fault of the civic administration of Cape Town at present.

The administrative block runs from S.E. to N.W., thus being on the axis of the prevailing winds and least subject to inconvenience therefrom. The parabolas overlook a railway reserve which will probably be parkland for many years to come. The offices in the fin are different depths on either side of the central corridor: The shallower offices on the S.W. side, with a view of Table Mountain, have comparatively small window-areas, which would be protected from the afternoon sun by Venetian blinds, as would those of the parabolas—this elevation is treated as a comparatively hard and "structural" background to the clean, light curves of the parabolas. The deeper offices on the N.E. side, with a view over the rest of the scheme and over the whole civic centre and monumental approach, have windows from floor to ceiling to get the maximum of morning sun (Cape Town's climate is not tropical) and light in proportion to their depth—the columns have been set back on this side, and the elevation treated as a light, brittle, almost fragile background to the comparatively heavy and solid masses of the assembly halls block.

#### DETAIL PLANNING OF TOWN CLERK'S DEPARTMENT.

It is, strictly speaking, a waste of time to carry out the detail planning of any administrative department more than a few years before the actual proposed erection of a city hall; however, this has been done in the case of the Town Clerk's Department simply to indicate typical partitioning, to show the relation of this department to the Mayor and Council block, and to clarify the working of the administrative block generally. Study of the plans should make the placing and inter-relation of the various branches and offices quite clear, but there are one or two points which required special consideration. It is an arguable point, for instance, whether the Traffic Control Branch should be brought into the administrative centre or retained decentralised outside the city area as at present; at all events it has been included to illustrate a typical use of a parabola basement. While it is at present the smallest of the five, the Town Clerk's Department is likely to expand more rapidly than the others, and therefore various hypothetical new branches have been included in its planning. It is hoped that there would be a really adequate public information bureau, so one has been indicated on the ground floor



in a very prominent and accessible position. On the internal administrative side, control headquarters of the whole civic centre have been shown on the ground floor plan, just below the Mayor-Town Clerk fulcrum of the city hall unit. Finally, two more unorthodox offices which have been included in the Town Clerk's Department require a word of explanation: firstly, the Citizens' Housing League Utility Company is a non-profit-making organisation which is carrying on work which should be the responsibility of the Municipality. The company has at present many dealings with three of the administrative departments, and it would be an excellent thing if it could hire one of the parabola floors as indicated, and thus be situated in the Town Clerk's Department, with the City Treasurer and the City Engineer on either hand. The company's accommodation has been indicated in an expanded future form, to conform with the intermediate stage of expansion of Cape Town adopted as a size standard elsewhere in this thesis. The writer understands that the company would be only too glad to hand over their organisation intact to the Council, should the latter show signs of wanting to shoulder at last their social responsibilities. Finally, an entire floor of the Town Clerk's parabola, together with its section of fin, has been indicated as occupied by a Regional Planning Office. It is not suggested that regional planning should be in the hands of the Council—that would be most undesirable—the office indicated would be an executive branch of the central Government or Provincial authority, working in local co-operation with the Municipality, and accommodated, simply for convenience, in a floor rented from it, in much the same way as Escom rents branch office space from municipal electricity departments in various towns.

#### CARETAKER AND NIGHT-WATCHMEN.

It is obvious that for a scheme of this size an army of cleaners and two shifts of night-watchmen would be required, in addition to the caretaker. In fact, the caretaker's position becomes one of organising and supervising the work of others; he would require telephonic communication with all parts of the scheme, and he would have to be resident on the site. It has been decided to have small cleaner-night-watchman rooms at various points, particularly basements, of the main blocks, and to accommodate the caretaker in a separate house on the site rather than in a top-floor flat at some point or other in the main buildings. This house has been indicated, in a clearing surrounded by trees, on the scale model of the scheme.

#### ASSEMBLY HALLS BLOCK.

The principal elements in this block are a very large and a medium or small assembly hall, and a banqueting hall. The large assembly hall has a very spacious grand foyer, approached by an entrance on either side: the main entrance doors from the grand boulevard lead into an entrance hall, from which the public can go up one flight of steps, past the box-offices, directly into the grand foyer, or down a

flight into the cloakrooms, which occupy the entire basement under the foyer. Stretching the full width over the steps from entrance hall to foyer is what the writer can only term a slosh gallery (no other name conveys the idea of its function) approached by a small stair from the foyer itself; over this again is the reinforced glass bottom of a fish pond forming an interesting soffit, translucent by day and floodlit from above (or from below, if the banqueting hall and terrace are in use) at night. The alternative public entrance to the grand foyer is through the doors under the Council Chamber, approached from the service road on the site, which lead into the reception hall, where privileged guests are formally received by the Mayor instead of by a box-office; otherwise it is similar to the main entrance hall in that a flight up leads to the grand foyer, and a flight down to the cloakroom basement: for convenience these stairs link through, i.e., people can enter the basement via the reception hall and leave it through the entrance hall or vice versa, although the normal procedure would be to enter and leave it by the same stair. The basement is divided into separate cloakrooms for men and women, approached by an entirely separate stairs from entrance or reception halls as described above. Councilors can enter the grand foyer from the passages around the Council Chamber, through a small exhibition hall which has three walls only, the space where the third would be being bounded by a railing and overlooking the grand foyer, down to which lead two stairs. From the N.W. end of the foyer doors open into the assembly hall.

The assembly hall is equipped with a very large platform with an acoustic shell and no proscenium. The dimensions of the hall approach the limits of practical size, but this is unavoidable if the desired number of people are to be accommodated—the only way to reduce the dimensions would be to increase very considerably the size of the gallery—this would have many disadvantages, and would still not solve the problem of an adequate area for dancing. Electrical amplification of speech from the platform would in any case be required, but this need not be objectionable if good equipment, properly slowed down to avoid echo, is used. As a comparison, it is interesting to note that the dimensions of the hall are just under those of the large hall at Magdeburg, which is usually accepted as being the maximum reasonable size. At all events, the hall seats 2,300 persons and the gallery about 300; and the dance floor will accommodate 760 couples at 15 square feet per couple. Access corridors around gallery and main floor are divided therefrom by sliding plate-glass frames, so that they can provide space for an overflow audience, or for tables when the hall is in use for dancing. Incidentally, the complete divorce between hall and surrounding corridors is one of the most unpleasant features of the present City Hall on such occasions. Apart from services, chair and table storage, etc., the basement of the assembly hall has a column spacing suited to car parking, but would probably be used for this purpose only in the event of such an increase in traffic that the open car parks on the site become inadequate. On the

S.W. side, with no circulation connection with the rest of the block, is a public lavatory at basement level for day and night use by the general outside public: Cape Town is notoriously short of such conveniences. Returning to the grand foyer, a double flight of steps leads up to the assembly hall gallery on one side, and to the banquetting hall on the other.

The public banquetting hall, seating 500 persons, is directly over the grand foyer, and is separated from the large connecting stair and landing by a clear glass partition from floor to ceiling. Councillors can enter the banquetting hall separately via the stair and passage from the members' terrace over the Council Chamber. The N.E. wall is composed of folding glass doors which can be thrown completely open, giving an unimpeded prospect over the grand boulevard and leading on to the open terrace over the entrance hall. A feature of the terrace is the water surface of the fish pond, which, as already mentioned, can be floodlit from below at night. The kitchens for the banquetting hall are over the exhibition hall; they serve the hall directly, and the members' dining room indirectly via a food-lift; and a separate external spiral stair could be provided later in the position indicated, should this be found necessary.

The minor assembly hall is a more or less separate unit. It has a foyer and cloakroom basement based on similar principles to those of the major hall. In actual fact the two foyers can be thrown together by opening the sliding panels between them, although this connection would not be required normally. The men's cloakroom can be used as an extension of that of the major one when functions do not clash. The minor hall seats 650 persons, and about 200 in the gallery, and has dancing space for 130 couples. The major and minor halls serve identical purposes, but are of different size, and hence have been treated in different architectural "moods"—the major hall is simple and austere, relying upon its size and simple proportions for effect, and having a hard, clean finish; while the minor hall is more intimate, used more for private than for civic dances and functions, and has therefore almost a night-club atmosphere, with a rich and sophisticated finish. The stair up from the minor hall foyer leads on the one side to the gallery, and on the other to two wedding halls planned en-suite with a heavy curtain as partition.

#### PEDESTRIAN BRIDGE AND CARILLON-PARABOLA.

As this feature of the scheme would probably raise cries of "extravagance," it might be as well to set forward here its many sound *raison-d'être*. Firstly, some kind of pedestrian bridge or subway across the grand boulevard at this focal point is absolutely essential; secondly, a new place must be

found in the scheme for Cape Town's fine 37-bell carillon; and thirdly, it has great aesthetic possibilities with relation to the grand boulevard, the monumental approach, and the whole foreshore area. "Here," its form proclaims, "is the civic centre," and "this," chimes the carillon, "is no mean city." It is admittedly not a simple object to construct—in fact it would probably involve the building of a temporary brickwork frame to its full height and width. Supposing, however, that it would cost about as much as a solid Big-Ben-clock-and-bell-campanile affair complete, with Gothic pinnacles, then from a *finage* point of view the city would be the cost of a bridge to the good.

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## CHAPTER II.

### THE DESIGN DRAWINGS.

Note: With regard to the question of expansion, certain inconsistencies of approach between programme and design drawings have proved unavoidable; thus the programme lists accommodation for an intermediate population stage (1,000,000 in 1970), yet in the model and in elevations it was obviously necessary to present the ultimate stage (2,000,000 in 1990). It would be useless to carry out detail planning for departments 45 years ahead. Therefore model and drawn elevations and sections represent the ultimate stage of the scheme, and the plans the intermediate stage, while the plans of the upper two floors of the fin represent a terminating arrangement to be moved up each time the fin was vertically expanded between the intermediate and ultimate stages.

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Owing to the number and size of the drawings involved, it has only been possible to reproduce those which are most informative and which best illustrate the general design of the City Hall.

It has been found necessary, too, to omit Chapter III, which deals comprehensively with the design of the reinforced concrete structure.

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## CHAPTER IV.

### A C O U S T I C S .

The science of acoustics consists of the study of the relationship between sound of all kinds and the human ear, and how this relationship is affected by building-shapes, volumes, and materials. This study may be divided into two main categories—designing against noise, and designing for sound. The general principles of acoustics and the special requirements of council chambers having been already stated in Part II of this thesis [p. 96], will not be repeated here. It does, however, remain to investigate in detail their application to the particular Council Chamber, the position, shapes, and main dimensions of which have now been determined [see Design Drawings].

#### DESIGNING AGAINST NOISE.

**Airborne Noise:** So great are the planning advantages derived from placing the Council Chamber in the position shown, that the disadvantages of having a motor road (with consequent noise) passing beneath it are relatively unimportant. It should be remembered that the road takes no through traffic, but only cars going to and from parking areas on the site; and also that the Council Chamber would not be in use when the road is noisiest, i.e., when the Mayor is receiving the public at the reception hall entrance. Nevertheless, adequate precautions can and would be taken against noise from this source: concrete floor slab and concrete "soffit" slab over road, structurally separated by felt cushioning at beams and points of support, with sealed air-space between to prevent "drumming" of slabs (the problem is not grave enough to warrant independent internal box construction); external walls in cavity brickwork vertically reinforced (no ties), the outer skin being faced with 4' 6" x 2' 0" reflecting terrazzo slabs; and windows glazed with two different thicknesses of glass with 3" cavity between, and non-opening (air-conditioning). With regard to the other airborne noise, the whole Council suite, being situated between the two main administrative and assembly blocks, is as free as possible from main street and traffic noises such as buses, lorries, hooting, etc.

**Impact Noise:** The road surface for a length of 80 feet under the Council Chamber should be in rubber blocks (patterned for grip) to prevent structural vibration. All floors near Council Chamber should be carpeted (including access passages and gallery), that of the main floor on a felt underlay. Cork floor to members' dining room over and separate suspended reflecting ceiling (gypsum plaster on laths) to Council Chamber under. Note that lifts and stairs are well insulated and isolated from the Chamber.

**Noise at Source:** All fittings, hardware, etc., should be of a silent type. Gallery doors should have rubber silent-closing strips, and gallery seats should be fixed, not the flap-up type.

Note that doors are not provided between Chamber and access passages, but as draught and noise seals, at the ends of the passages.

#### DESIGNING FOR SOUND.

The diagram opposite shows the basic shape of the Council Chamber, arrived at through other than acoustic considerations—external planning, desirable volume, good vision, etc. As we have already seen, it is necessary that speech from any point (except the gallery) should be heard, reinforced by reflection where necessary, at every point in the Chamber. Three typical points, marked "bench," "side" and "back," have been chosen to investigate whether this requirement has been fulfilled. From empiric application of the principles of acoustics we have a broad idea of which surfaces should be made reflecting, and which absorbent. At this stage it has been found desirable to make certain shape modifications: firstly, each curved end wall would cause undesirable sound concentration near the wall opposite it (from which centre the curve is struck), yet the lower part thereof should be reflecting, therefore this part has been tilted forward so that converging sound waves are directed on to the (absorbent) floor before they can meet, and the upper part has been treated as an absorbent; secondly, the soffit over the side galleries has been lowered to reduce volume; and finally, the cornice over the main gallery has been omitted as it would otherwise cut off ceiling-reflected speech from the back of the main floor to gallery listeners. Opposite are shown, for each of the three chosen points, surface treatment (indicated by a hard line outside reflecting surfaces, and a dotted line outside absorbent surfaces), and the position of a direct sound-wave at any given instant. Also shown is the position and direction of reflected sound waves at the same instant. Construction lines, image points, etc., have been omitted for purposes of clarity. Examination of these diagrams shows that in no case does the reflected sound follow the direct sound at a distance of more than 70 feet—in other words, there will be no discernible echoes in the Chamber. The diagrams also show that there is no hearer very distant from a speaker at any point who does not get adequate sound-reinforcement by reflection from that point. The Chamber may therefore be considered satisfactory as regards disposition of reflecting and absorbing surfaces.

All that remains to be done is to see whether the materials we decide to use will give us a reasonably close approximation to the ideal reverberation time for a Chamber of the given size, used for speech only.

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See overleaf for Reverberation Calculations.

## REVERBERATION CALCULATIONS.

Air volume of Chamber (including gallery) = 53,800 cub. ft. Now, reverberation graph shows that desirable reverberation time  $t$  for a chamber of this volume used for speech only is .85 sec.

$$\text{But Sabine's formula states that actual } t = \frac{v}{20 \times A}$$

( $v$  is volume of air,  $A$  is total of area  $\times$  coefft. of all materials.)

$$\text{Therefore for a } t \text{ of } .85 \text{ secs. } A \text{ must} = \frac{53,800}{20 \times .85} = 3,160 \text{ open window units.}$$

Let us see what our absorption could be with the use of the following suitable materials:—

SURFACE.	AREA	ABSORPTION COEFFT. [512 CYCLES].	O.W.U.	ADJUSTMENTS.	NETT A.
FLOOR: Carpet on Felt	1,840	.35	664	—20% for masking.	515
COUNCIL: Upholstered Armchairs	No. 45	3.0	135		135
PANELLING: Plywood (fixed solid)	1,500	.06	90	+ 32 o.w.u. for openings.	122
REFLECTOR: Polished Plywood	382	.03	12		12
UPPER WALLS: Acoustic Celotex Perforated Tiles	2,080	.84	1,750		1,750
WINDOWS: Steel Frames, 32 oz. Glass	240	.027	7		7
DOORS TO GALLERY: Flush Plywood	42	.06	3		3
GALLERY FLOOR: Carpet on Boards	620	.25	150	—30% for masking.	105
GALLERY BENCHES	105ft. run	.3/1ft. 9in.	18		18
GALLERY CEILING: Gypsum Plaster on Laths	560	.03	17		17
CHAMBER CEILING: Gypsum Plaster on Laths	2,250	.03	67		67
PERSONS IN GALLERY: Average	No. 20	4.2	84		84
Total A					2,835 o.w.u.

i.e., We must make up a deficiency of 325 o.w.u.

Now, the portion close to the wall of the Chamber ceiling can safely be made absorbent, as it is not required for reflection (see diagrams). The total area of this portion being 540 sq. ft., we must use a material with a coefft. of 325 = 540, i.e., approx. .6, to give the required A of 325 o.w.u. Kalite Cast Acoustic Plaster is a suitable material of the required coefft.; and with this modification, therefore, the Chamber will have the ideal  $t$  of .85 secs.

NOTE: Seats on main floor being heavily upholstered, and on a carpeted solid floor, attendance of Councillors will not appreciably affect reverberation. Audience factor does, however, apply to the gallery, which may be empty or full (60 persons). We have based our calculations on an average attendance [one-third full], but it remains to investigate effect of other conditions on  $t$ .—Empty gallery decreases A by 84 o.w.u. (above), and  $t$  becomes 53800 = (20  $\times$  3076), i.e., .875 secs.; a full gallery increases A by 168 o.w.u., and  $t$  becomes 53800 = (20  $\times$  3328), i.e., .81 sec.

In neither case is the variation from the ideal  $t$  excessive.

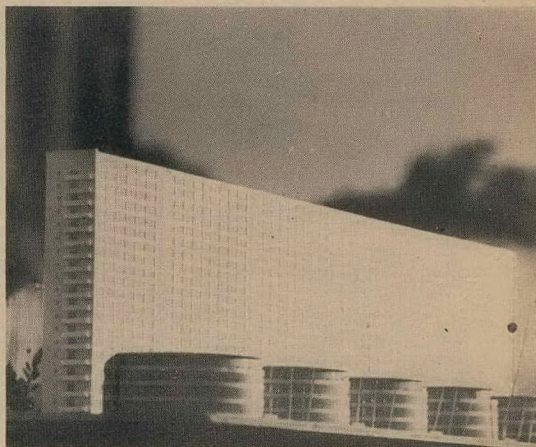
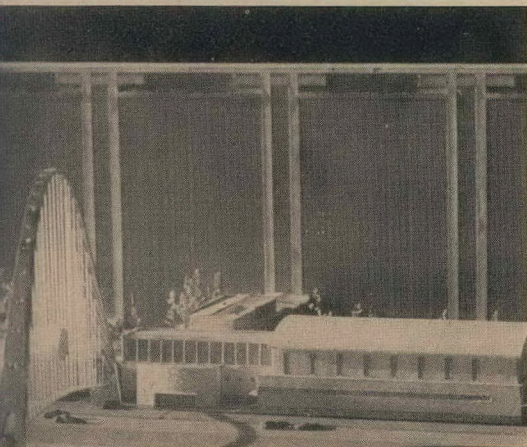
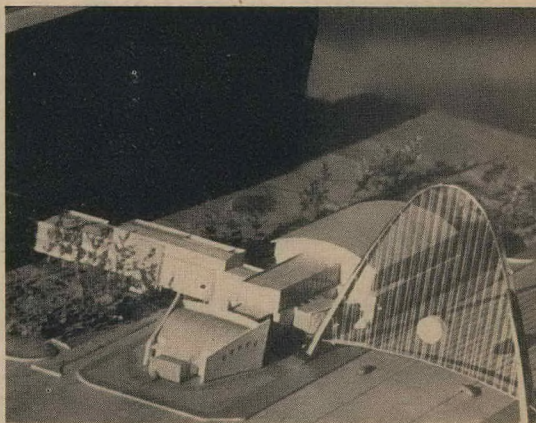
## CHAPTER V.

### SERVICES, COST, ETC.

The various items of equipment and services for a scheme of this nature are too vast a field to cover here in any detail. Certain points, however, should be briefly mentioned, in conclusion. The whole scheme has been designed with air-conditioning in mind: there would be a total of eight plenum chambers—one for each department, one for Mayor and Council block, one for minor hall and foyer, and one for assembly hall, foyer, banqueting hall, etc. The layout of ducts and air-conditioning circulation in the administrative block has been indicated on the design drawings. All windows would be of the hopper type, with cleaning hinges, and normally kept closed—this has many advantages, including noise-exclusion and thermal insulation. As far as possible, plumbing and rainwater pipes have been taken down in internal ducts, of adequate size for access for maintenance. Electricity would be supplied in bulk

to a scheme of this size—a transformer room about 40 feet square would be required, preferably in the basement of the City Electrical Engineer's Department. An automatic telephone exchange, for both outside and inter-communication, would be best placed as indicated in the basement of the Town Clerk's Department. The proposed air-conditioning ducts and plant would simplify the installation of a wall-point vacuum-cleaning system if desired. All other services and equipment would conform to the standards of normal good building practice.

It is extremely difficult to estimate the cost of any job involving so many classes and types of building as the proposed scheme. Basing rough calculations on cube prices on a pre-war scale, however, gives the following results: Administrative blocks, 11,750,000 cubic feet @ 1/6 a cube = £880,000; assembly halls block, 2,580,000 cubic feet @ 2/- per cube = £258,000; and Mayor and Council block, 385,000 cubic feet @ 2/6 a cube = £48,500. Total cost of scheme = £1,186,500 very approximately.



VIEWS OF THE MODEL OF THE CITY HALL

In addition to those mentioned in Parts I and II, the writer wishes to thank the following: Mr. Charles de Water for his advice concerning the Citizens' Housing League Utility Company, and Lieut. E. Greenblo for many evenings of assistance in the making of the model.

# THE STUDENTS' FORUM

*This issue of the journal introduces a new feature by which it is intended to provide a forum for student opinion and to which students are invited to contribute on aspects of Architecture, Art and allied subjects. It is hoped that, by this means, there will be an increasing awareness in the profession of the thoughts and ideals of the student body, and also that the student may become more closely identified with the profession and its activities and take a keener personal interest in the affairs of the Institute as a whole.*

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## ARCHITECTURAL STUDENTS' SOCIETY, UNIVERSITY OF THE WITWATERSRAND

The Union of South Africa is generally considered the youngest child in the family known as the British Commonwealth of Nations. Born with a golden spoon in her mouth, she has been able to develop materially to an astonishing extent; a development which has far outstripped that adapted continental tradition of architecture which graciously adorned two of the older constituent provinces. Thus we have a prosperous but almost virgin country as the field of our endeavours.

Coincidentally a new movement in architecture has been born. This movement gives fair promise of being an emergence of orderly and logical achievement from the chaos, which the technical developments of the last century and their repercussions in social and political spheres had precipitated.

The same technical developments have made possible a system of world-wide communications infinitely more swift and comprehensive than ever before. The resulting inter-communication of peoples; the importation and exportation of their products, naturally tends to unify the outlook of peoples who vary distinctly in their racial characteristics. A corresponding unity in the architecture of these peoples can therefore be anticipated.

As students of architecture in South Africa with the possibilities of a new movement before us, we have the special advantage of working in a country unhampered by century-long accumulations of filth, inconvenience and disorder. In the balance, however, is a serious disadvantage—we have no tradition of building technique.

Though that tendency towards unity in architecture which has been mentioned may help us, we can only refer to buildings overseas in so far as they solve similar problems; all divergencies from that similarity will have to be met by our own individual funds of knowledge gathered from research, imaginative experiment or practical experience. We have before us a vast field to be explored. The material resources of the country will have to be surveyed and efficient methods of exploiting them evolved, before we can build as "South African architects."

The exploration of this field is a task which will require prolonged and patient investigation. The opportunity to set up in the pages of the "South African Architectural Record" a Students' Forum, in which reports of such investigations can be published and discussed, is a very welcome one, for which we thank the South African architectural profession sincerely.

## SCHOOL OF ARCHITECTURE, UNIVERSITY OF CAPE TOWN

It is with a high sense of the honour bestowed upon it by the "South African Architectural Record" that U.C.T. School of Architecture has accepted its invitation to contribute to these columns. The School feels that for the understanding of its opinion and aims a brief outline of its recent history will not be amiss.

At mid-year, 1942, the School of Architecture, deprived of its ancient home, at the head of the Government Avenue, torn from the soft graces of the Michaelis School of Fine Art, settled uneasily into the unquestionably makeshift premises in the Medical School at Mowbray. The year closed on a sombre note.

Nineteen forty-three, therefore, opened in unfamiliar surroundings, which the intrusion of a large number of new first year faces did little to dispel. A braaivleisaand organised by the Students' Society and held in the Professor's kindly acres, Green Valley, Constantia, however, successfully and immediately consolidated the internal social organisation, even though the Professor's lawn has never been quite the same again. The nostalgic sighs for Orange Street which had characterised the term before had passed away, but their passage did not imply acceptance of the atmosphere of the new home. Whatever advantages or otherwise association with the School of Fine Art may have bestowed, the architects

were making a clean break with the old tradition and disclaiming all fraternal ties. But at the Medical School the difference of temperament and outlook between the medical and architectural students clearly defined the students and set them as races apart. The architects formed a closed community, and a strong sense of their homogeneity developed. Not without reason, they thought themselves privileged in the smallness of their number and the consequent intimacy with one another and the staff. With the latter, by comparison with other faculties, they thought themselves singularly blessed.

In addition to placing a damper on excessive levity, the Medical School was not without influence, finding many admirers of its discipline, scientific approach and seriousness. There were, however, those who still longed for the fleshpots of Orange Street and the high jinks of Hiddingh Hall, and clashed with the new adherents of the Phillistines. The struggle crystallised in a spirited debate, "Whether the Architect is Engineer or Artist." Extremist views by radicals on both sides were expressed, the "dehumanised" definition of architecture being countered by a Ruskinese retort, in which ethics and aesthetics vied in claiming brick and corrugated iron for their own. Half-hearted compromise led to general conclusions, and the debate wound up with general agreement, that if both scientist and artist were good architects, they had something in common despite disparate views. It seemed to the students only then, as it seems to each generation, discovering this truth afresh, that architecture in its own right constituted the common factor between them, and the architect as a distinct entity was a refreshing concept that rapidly became popular.

The boats of Orange Street burned behind, the uninviting prospect of the Medical School stretched before, and the School, in its isolation, found new pride in itself; a new spirit of independence, whose results became almost immediately manifest. There was agitation for a Common Room, for an insignia and a motto; while the Utopian dream of a separate school building, a vision of glass and steel on the wooded slopes of Devil's Peak came in for ever more wistful discussion. The thought of "an Architectural Centre of Work and Thought" made illusorily tangible by the choice of this subject by one of the thesis students, no longer sounded so self-contradictory a term as students of the old days might have thought: a new spirit was emerging.

There followed a proposal to amend the B.A. Course and to introduce a degree of B.Arch., while a further move towards complete independence engendered a general enthusiasm for

a separate Faculty of Architecture. It seems as if the contact with unsympathetic surroundings has stimulated the School to reform, and from the present turmoil of conflicting loyalties that rare bird, the architect proper, is going to emerge. With the reorientation of the internal interests of the School went a new awareness of the rest of the University. The architects have suffered in the past as a result of their isolation and had come to be regarded as strange abnormal beings vaguely immoral, in an ivory tower called the "Art school"—like that—capital A, small s. Fortunately their tower commanded the city and the larger world, while in the main body of the University enjoyed the picturesque but less vital panorama of the Hottentots Holland. It is to be expected that, having become acclimatised to quarters nearer the portico of the Jameson Hall, they should seek to impress their arrival and emphasise that they had something to say.

With a view, it seemed, more to demonstrate the social conscience of the young architect than to provide an opportunity for serious discussion, two town planning symposia, staged by the Students' Societies, were, with deliberate bombast, publicised by one of the largest posters ever to appear in the Students' Union. "Under the Auspices of the Architectural Students' Society" should have been more prominent on the posters than "Town Planning Symposium." "We'll tell them," was the cry, although what they should tell was less important than the telling. As publicity, the symposia were certainly a success, but as a contribution to knowledge, hardly so. With much gusto but little forethought, the organisers marshalled in the persons of Professors Thornton White, Batson and Snape and Mr. D. R. Harper, the points of view of architect, social scientist and engineer, but although each had a great deal to contribute, one was left with the impression of a bewildering lack of cohesion. Each paper was excellent, but complete in itself, and no one was given the admittedly ungrateful task of summing-up. The preparation of a symposium of this sort is quite as important as its presentation, demanding a careful analysis of the problem, definition of terms and scope of subject before the speakers prepare their papers. "A drinking together" does not presuppose agreement, and while differences are best well aired, they must at least be related and of the same order. The site has, however, been cleared for future building in the New Year.

Unlike its beginning, 1943 closed on a note of self-confidence and optimism, to which a well-attended after-examination dance added not a little. We look forward to 1944 with expectation.

## SOME NOTES ON THE STANDARD SYSTEM OF MEASURING BUILDERS' WORK IN SOUTH AFRICA

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A committee of the Chapter of Quantity Surveyors is now working on a revised edition of the "Standard System," and I understand that they invite the comment and criticism of the profession in their arduous task. Certainly the proposed revision of the "Standard System" is of vital interest to every quantity surveyor, and should inspire much discussion, so that the new edition may benefit by the collective experience of the profession.

Here are a few comments of my own, which I hope may provoke discussion and many other suggestions.

### 1. Beamfilling.

At present this is measured super, and I contend that this gives little indication of the labour involved. The labour of cutting to suit the slope of the roof and around rafters is the same whether the beamfilling is two or four courses high, as it depends on the length, not the area, of the beamfilling. It should therefore be measured linearly, and I suggest that the item in the S.S. should read as follows:—

Brickwork in Beamfilling. Lin. ft. State number of courses high (extreme height), number of bricks thick, and cut to soffit of roofing (e.g., corrugated iron, corrugated asbestos, slate, etc.).

### 2. Built in or bed and point wood or iron frames.

I suggest that "large frame" should be defined as over 24 super feet, not 20 feet super, as the latter figure excludes the frame to an ordinary stock 2' 8" x 6' 8" door.

### 3. Facings.

It would seem that half-brick and one brick walls faced both sides should be measured as stock brickwork under the present system, and then facings "extra over" measured to both sides. This, of course, gives no idea of the value of the items, as the number of facing bricks to be used per super yard (in the case of a one brick wall) depends on whether the walls are also faced on the other side, a fact which would not be clear from the description of the facings.

In any case, as all the bricks in a one brick wall faced both sides are facing bricks, there is no point in measuring "extra over."

To sum up, I contend that half-brick walls faced one or both sides, and one brick walls faced both sides, should be described as built in facing bricks, and pointed one or both sides as the case may be. In the case of half-brick walls fair both sides, it is necessary carefully to select the bricks, and the description suggested gives the contractor an exact idea of the labour and number of facing bricks required per super yard.

### 4. Facings to reveals.

At present this is to be measured super not less than 4½" wide, and presumably added to the other facings, but the facing to a reveal has not, in fact, the same value as the facing to the walls, as no extra facing bricks are necessary for the first 4½" width of the reveal. This item would, I think, be better measured linearly, stating the width as not exceeding 4½", 9", etc.

### 5. Arrisses in plaster.

It has become customary for many surveyors to include the arris with plaster to reveals where the width is less than 1' 0" and is therefore measured linearly. This is a simplification, and, I think, should therefore be adopted.

Also most plastering contractors do not price "labour to arris" when measured as at angles of buildings, etc., and I think arrisses could well be regarded as included in the super items of plastering.

### 6. Painting to frames.

Where the girth of a frame to be painted, including architraves or fillets, is not exceeding 1' 0", I think that the item should be measured linearly and expressed in linear yards as the rule for picture rails, skirtings, etc.

I hope that these few suggestions may elicit many others from the profession, and thereby assist the "Standard System Committee" in their task.

A. R. WILCOX.



## THE TRANSVAAL PROVINCIAL INSTITUTE OF ARCHITECTS

### PROVINCIAL WORK

The Transvaal Provincial Administration has indicated that it proposes to distribute a considerable amount of school work amongst the profession during the next five years. Any practising member in the Transvaal who has not received or replied to the Institute's questionnaire relative to this, is asked to communicate with the Secretary, Kelvin House, Johannesburg, at the earliest opportunity. The Administration and the Institute are particularly concerned in assisting those members who have been, or are, on active service, and it is suggested that those serving members who contemplate re-opening their offices, or starting a new practice on their own account, should make arrangements to collaborate with an established firm, so that they may participate in the immediate future distribution. Any such arrangements should be brought to the notice of the Secretary of the Institute as soon as possible.

D. M. COWIN,  
President.

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### BUILDING CONTROL STAFF

Two Architects are required to serve on the staff of Building Control in Johannesburg.

The Adjutant-General has signified his willingness to release potential candidates provided they have a medical category less than A1. Enquiries should be addressed to:

Mr. D. M. COWIN, Hon. Liaison Officer,  
601, Jubilee House,  
Simmonds Street,  
Johannesburg.

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## THE SOUTH AFRICAN ACADEMY, TWENTY-FIFTH ANNUAL EXHIBITION, 1944

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The Sub-committee for Propaganda appointed by the Central Council, Institute of South African Architects, wishes to draw the attention of architects in the Union to a report from the South African Academy Committee, pointing out that the Architectural section of the Academy has declined seriously in recent years. The Sub-committee for Propaganda wishes to inform members that the Academy will be held in the Johannesburg Art Gallery this year. It should be noted that the Academy is becoming an increasingly important annual event, and, to judge from Press comments, each year awakens considerable public interest.

In view of the fact that the Central Council at its last meeting decided to embark on a vigorous policy of propaganda for the profession, members are requested to support the South African Academy since it is obviously a very suitable medium for making the work of the profession better known to the public.

Perspective studies, plans, elevations and sketches generally, providing that these have been presented in a manner which will render them suitable for exhibition to the layman, would form suitable subjects for submission.

Drawings must be delivered to the Art Gallery, Joubert Park, Johannesburg, not later than one week prior to the opening of the exhibition. Entry forms may be obtained from the Acting Secretary, Transvaal Provincial Institute of Architects, 611, Kelvin House, 75, Marshall Street, Johannesburg.

## SOUTH AFRICAN STANDARDS INSTITUTION

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The Secretary,  
Institute of South African Architects,  
8, Walter Wise Building,  
Joubert Street, Johannesburg.

P.O. Box 3293,  
Johannesburg.  
3rd March, 1944.

Dear Sir,

### ASBESTOS-CEMENT ROOFING MATERIALS.

Arising out of the proceedings by the Assistant Inspector of Factories of an enquiry into a fatal accident in Braamfontein caused by a native workman falling through a corrugated asbestos-cement roof, which were reported in "The Star" of the 12th January, 1944, the National Federation of Building Trades Employers approached this Institution urging the need for ensuring that the suppliers of asbestos-cement roofing materials should comply with a standard specification.

The Federation has been informed that an adequate specification for asbestos-cement roofing materials already exists, viz.: British Standard Specification No. 690 of 1940, which was formally adopted as a South African specification some time ago.

Investigations by this Institution revealed that none of the manufacturers of these products in South Africa is complying in all respects with the requirements of this specification.

In some cases the provisions as regards strength are complied with; in other cases the provisions as regards dimensions are complied with. It is clearly essential that both sets of provisions shall be complied with, otherwise architects and engineers and other users are faced with considerable difficulties in regard to the use of these materials.

This Institution has written to the individual manufacturers pointing out these shortcomings and strongly urging the strict compliance with British Standard Specification No. 690 of 1940 as a minimum standard, at the earliest date possible. In the meantime this Institution urges your Institute to call the attention of your members to the facts set forth in this letter.

Yours faithfully,  
(Signed) J. CROMPTON,  
Hon. Secretary.

*Journal of the SA Architectural Institute*

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