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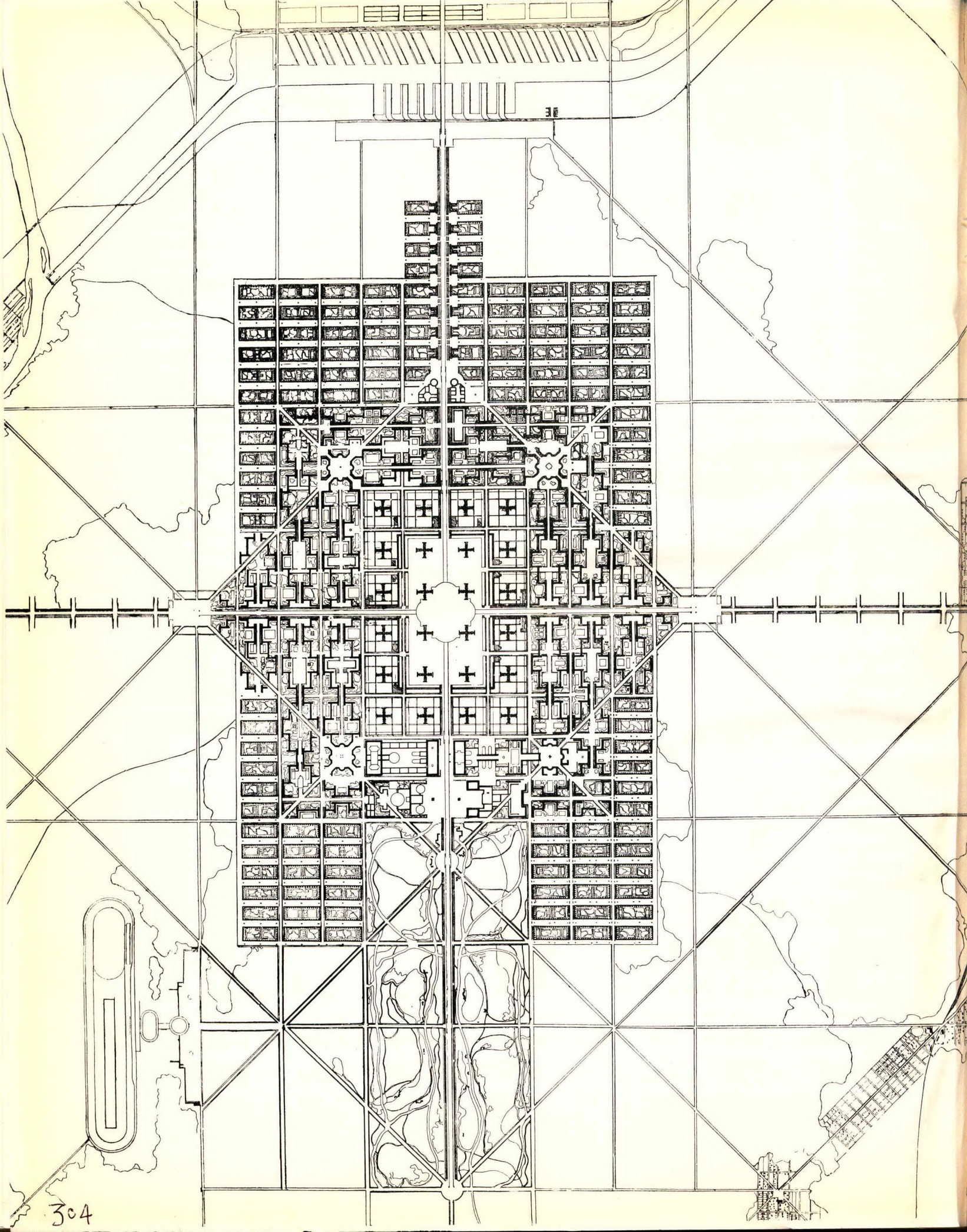
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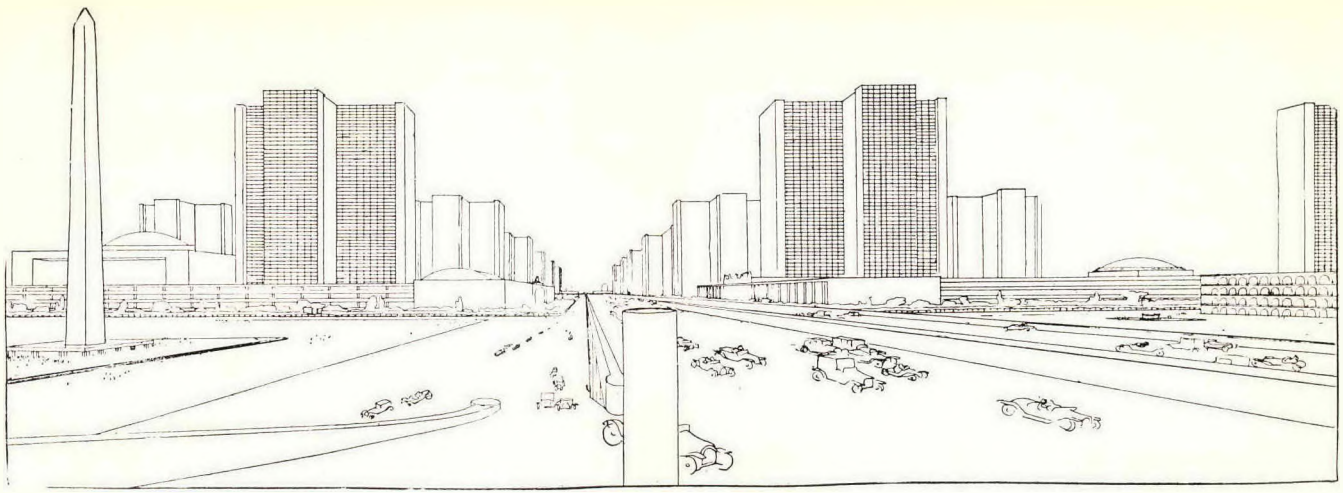
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30



the physics of civic planning

● gordon mcintosh

When asked to give a talk to the Young People's Club I was rather at a loss as to what subject I should choose. On thinking it over, I came to the conclusion that a talk on the physics of civic planning would be a fitting successor to your last month's lecture on physical culture.

This dealt very conclusively with the development of the body—to-night I wish to deal with the development of the town. For how can the body be developed if the soul is in conflict with the things around us—the town we live in and our homes.

What do we understand by the word "city?" Aristotle has defined it in this way—"A place where men live a common life for a noble end." How can this "noble end" be accomplished unless we make our cities so attractive and so beautiful as to diffuse a beneficent influence over our homes and our entire life.

Let me trace just briefly the development of cities from the earliest times of the Nomadic Greeks to the present day so that we can understand the problems we have to deal with to-day.

How did cities originate? Three sources—Greek, Roman, Medieval.

There was a natural evolution in early historic ages—when the Nomadic Greeks lived together in isolated family groups—these family groups uniting for protection against enemies into clans, the clans into tribes, the tribes into States, until finally the City States of Athens, Corinth, Sparta—were formed.

Greek and Roman cities being fairly well developed—Roman cities mostly colonial were developed from the Roman Camp (Castra).

During the feudal periods, the nobles built their castles in strategic positions, protected by the natural lie of the surrounding country, or in positions which protected trade or main routes inland. The serfs who were bound down to their lords, as soldiers during times of unrest, as labourers during times of peace, naturally settled fairly close to the castle where they could withdraw for protection and service at a moment's notice: the roads from the castle gates leading out into the surrounding areas or to the next outpost developing in a most haphazard manner, similarly to our own country roads, here to-day, somewhere else to-morrow. The roads just without the castle gates became lined

● illustrations from the "urbanisme" of le corbusier

with merchants who set up their stalls for bartering with the peasants moving to and from the castle. Gradually these stalls were replaced with more permanent structures, the merchants settled with their families and a nucleus of a town developed around the castle walls. But still there was no lay-out, it just grew. For the protection of those living around the castle, a wall was built, also with its gates. As this germ grew a new and larger skin was necessary and so we get a town of gradually increasing population consisting of ring after ring of fortifying walls.

let us look at paris.

The Romans in their marches northward bumped into the Seine, a fairly large river, somewhat difficult to cross. On searching for a suitable ford they came across a group of islands in the river with narrow water ways separating them from the main land on either side. An ideal point of crossing, and one most suitable as a point controlling their great north road. So Paris started life as a group of huts on the islands in the Seine. Then an outpost, then a commercial centre, and gradually developed in a series of rings until we get the Paris of one hundred years ago.

Between 1850 and 1860 Baron Haussmann was commissioned to replan Paris. This he did, being the first to conceive ideas of spaciousness, order and convenience, in a city, and Paris became the best laid-out city in the world.

Let us turn for a moment to the theoretical diagram of Paris. The Avenue des Champs Elysees running from the Place de l'Etoile to Place de la Concorde, continuing as the Rue de Rivoli to the Place de la Nation, from there continuing as the Cours de Vincennes. Note the concentric series of Boulevards.

The Inner Circle : Le Grands Boulevards ; Boulevards St. Germain.

The Second Circle : Boulevards Exterieurs.

Finally an Outer Circle : Boulevards des Fortifications has been built upon the site of the outer fortifications.

These Boulevards ranging from one hundred feet to two hundred and thirty feet in width being richly planted with trees and flowers, bringing the garden into the city.

These fine Avenues, built when the traffic consisted of a few hansom cabs and carriages,

are already having difficulty in coping with present traffic.

Let us study the problems with which we are faced to-day.

During the last fifty years cities have developed with startling rapidity. In Scotland in 1901, twenty-five per cent. of the population was in the towns, 1920 about seventy-five per cent.

In America at the close of the Civil War three per cent. lived in cities, to-day over forty per cent. live in cities with a population greater than 8,000.

The present day trend in life is distinctly urban.

With this rapid development of population there has been very little thought given to the development of the cities themselves.

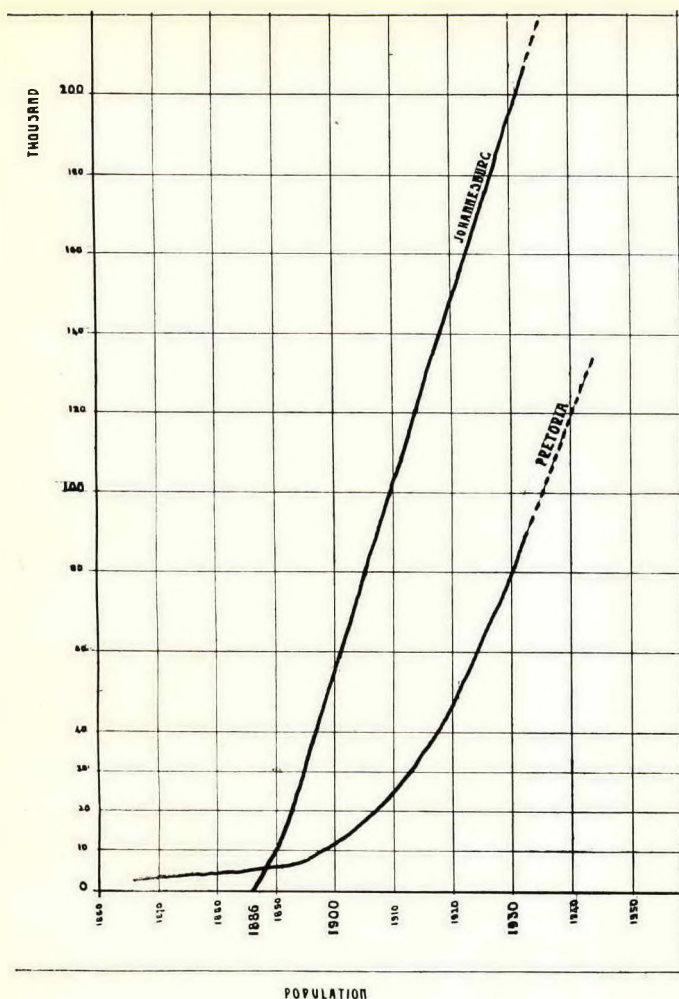
Look at the graphs showing the rate of increase in population of London, Paris and New York. Already the London streets are so congested that the traffic movement is almost at a standstill. In New York it has been estimated that the economic loss occasioned by traffic delays is approximately £200,000 per day. So that any improvement estimated to cost a million pounds would more than pay for itself in four years if the loss were estimated at only £1,000 per day.

Come nearer home, study the diagrams showing the growth of Johannesburg and Pretoria. Note the rapid increase in population in both these cases.

Note the more startling increase in the traffic development during the last ten years. Look at our streets—despite the increase in population and traffic, these are the same as they were forty years ago. Traffic congestion has increased to such an alarming extent that one can only foresee the towns being stifled with this disease.

All that has been done to remedy matters is to enforce a series of traffic regulations and to install robots. But still the difficulties are with us, no cure has been effected. No wonder a mornings drive to town on a shopping expedition lands us back at home almost nervous wrecks.

Take a closer look at Johannesburg, any town for that matter. How stifling are the crowded, noisy, narrow streets in summer—how dreary, cold and draughty in winter. The parks so far away, usually with terrible



spiked fences frowning at you as much as to say—you are not allowed in here, keep out!

The buildings themselves, are they so wonderful, are they really part and parcel of the town? That building there, six storeys high, next ten storeys, then one, a relic of the good old days, all heights, all styles, all kinds, all shapes, all sizes.

Our sea ports, when arriving back from a trip overseas, why should we have to land on to a dirty quay lined with depressing warehouses, tripping over innumerable rails, ropes, boxes and such obstacles. Surely there must be some remedy, some means whereby the thrill of arriving at some destination is not damped almost before we have set foot on earth.

Analyse the position carefully.

If we note the various increases in the fundamentals of the city, we can only come to the conclusion that the great city is a recent event, and dates back barely fifty years.

The growth of the city has exceeded all provision.

This growth has been a mad one, with disturbing possibilities, it is becoming a menace and the crisis is only just beginning. What will its future growth involve?

Even here in Johannesburg, if we study traffic conditions carefully, we can only realise that all our traffic and parking regulations are merely makeshifts, can never cure our problems—like giving morphia to a suffering patient, the pain will come again as soon as the drug wears off.

the development of the city.

Let me develop with you a city which will be suitable for our modern conditions.

Firstly—towns consist of zones, i.e., areas set aside for specific purposes—Business, Residential, Industrial.

In the same way that our bodies are divided into specific parts, head, trunk, legs, arms. What would we be like if we interchanged an arm for a leg? Rather tragic you would say—yes! and just as tragic in a city to let a factory grow up in the centre of a residential area.

Secondly—these zones consist in themselves of two interdependant components, the streets, and the areas or islands set aside for building purposes.

the streets.

The street of to-day is still the bare corridor with nothing in its favour. The street which our modern city requires, is something more, something designed to serve its purpose. Streets are necessary to link these island areas, to allow us to move from one point to another rapidly. To do this the street must run as directly as possible from point to point. It must be straight. It must be able to accommodate comfortably the maximum or peak flow of traffic. This can only be done by having it of sufficient width.

Traffic, the cause of street disease, must be classified. At present it remains unclassified, it is like dynamite flung at hazard into the street, killing those who venture too close.

Traffic can be divided into three main divisions.

Heavy and slow.

Medium weight and speed.

Fast.

Each of these classes should have their own ways :—

At ground level the street for heavy traffic.

Next level for medium traffic running in all directions.

For fast traffic, two great arterial roads running North and South and East and West, built on huge elevated ways one hundred and twenty feet wide and approached by subsidiary roads from the lower level.

The number of existing streets should be diminished by two thirds. Cross roads are the enemy of traffic, the chief cause of congestion. The unit between streets at present is about two hundred feet, this should be increased to twelve hundred feet.

Thus the city would consist of areas about twelve hundred feet square with no intermediate cross roads.

We have heard a lot recently about the open park spaces in the city, the lungs as they are called, but of what use are these spaces to the average working man, when the streets in which he works are crowded, noisy, stuffy and unhealthy in every way. Work in our modern world becomes more intensified each day and its demand on our nervous system becomes greater and greater. Modern toil

demands quiet and fresh air. Is there no way of making the whole city one great lung, healthy, beautiful and inspiring? This can be done, easily, by building vertically, and so reducing the ground area of buildings and turning the difference into gardens around our buildings.

the buildings.

Thirdly—There are four main types :—

Sky-scrapers (for business purposes).

Residential Flats.

Flats on cellular system.

Garden city houses.

the sky-scraper.

A whole district verticalised. The ground space is entirely free save for the numerous steel or concrete piles which carry the entire building (perhaps sixty storeys high from base to roof—a total height of seven hundred feet).

Only the lift halls and stairways are enclosed. It is built in the form of a cross, thus doing away with internal courts and giving a maximum stability.

The facades are deeply serrated and form veritable traps for light.

There are five groups of lifts and stairways—one in the centre and one at the end of each arm. Each arm is 450–550 feet long. In each angle between the wings of the building there is a parking space.

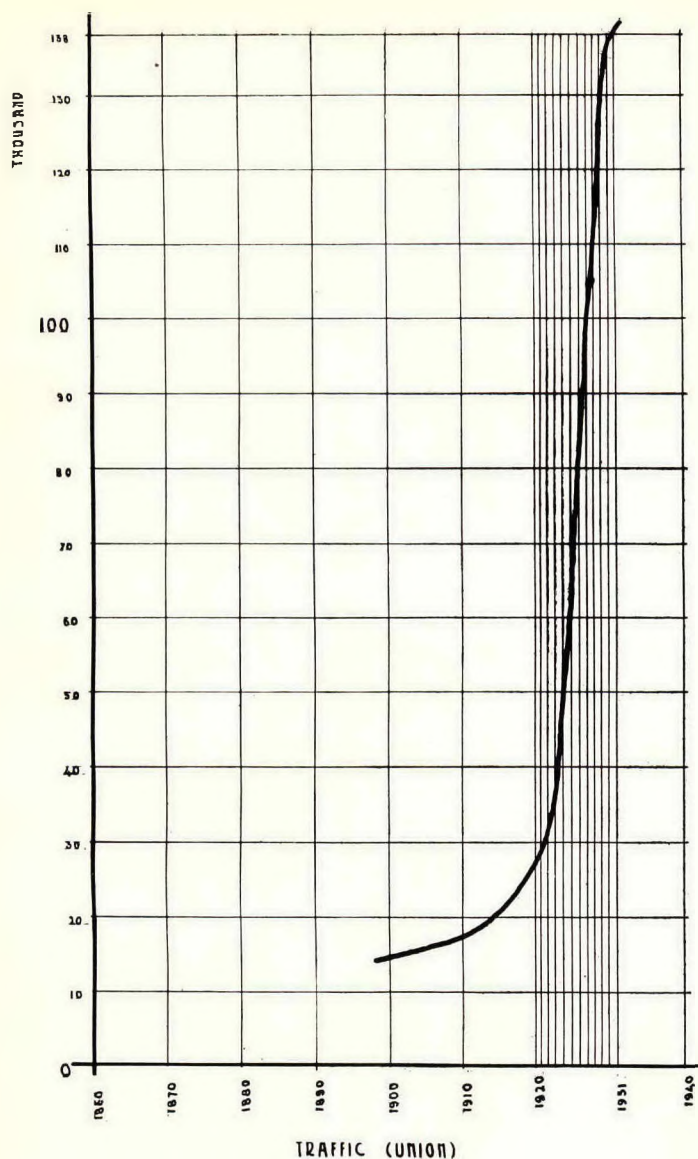
residential flats.

Near the city, flats for the workers grouped together in blocks six storeys high. These are designed with set-backs to break up the monotony of our present corridor streets. The cold dreary internal courtyards are done away with. The set-backs supply an architectural motive which takes us far from the corridor street. Every window of every room (and on both frontages) looks on to an open park.

Each block of flats has its gardens, its park and its sports ground. Sport is provided at the very door of one's home.

flats on the cellular system.

For workers in the industrial city. These being small double storey cells in large rectangular blocks—four hundred by two hundred yards surrounding an internal



park and sports ground. Each pair of buildings making up the four hundred by four hundred block is connected with a common group of dining rooms, kitchens, lounges and reception rooms.

On the roofs are gymnasiums, sun parlours, reception rooms where friends can be entertained in a pleasant and dignified fashion.

garden city houses.

Independent houses or villas for those who wish to live in the suburbs beyond the city.

Each of these buildings is away from the dust, noise and poison of the streets—each bathed in an atmosphere of sunlight and fresh air.

I have here the plan of a city designed to meet the needs of our present civilization and also to meet probable future needs.

This scheme was prepared by a Swiss Architect, M. Le Corbusier, one of the foremost thinkers of this century and as far as I know the only person who has developed such a plan to meet these present requirements. His original book "Urbanisme" has been translated from the French and is the most exciting book I have read on this subject.

The basic principles which he follows are these :—

We must decongest the centres of our cities :

We must augment their density :

We must increase the means for getting about :

We must increase parks and open spaces.

The centre of the whole scheme is the station with a landing stage for aero-taxis.

North-South and East-West we have main Arteries for fast traffic in the form of elevated roadways.

The heart of the town consists of a park in which is built a series of sky-scrapers at about twelve hundred feet apart. In these parks and round the sky-scrapers would be grouped the restaurants, cafes, luxury shops, also the theatres, halls, etc. Here are parking places and garages.

The sky-scrapers are designed for business only.

On one side we have the great public buildings, museums, Municipal and Administration offices, beyond which is a park (available for further logical development of the heart of the city).

On the other side we have the warehouses, industrial quarters with their goods stations.

All round the city is the protected zone of woods and green fields.

Further beyond are the garden cities forming a wide encircling band.

As mentioned before the centre of the whole scheme is the station made up as follows :-

Aerodrome, or landing platform two hundred thousand square yards in area.

Mezzanine or Entresol, being the elevated tracks for fast traffic.

Ground floor, entrance halls, booking offices for tubes, suburban, main line and air traffic.

Basement, tubes serving city and main arteries.

Sub-basement, suburban lines running on a one way loop.

Sub Sub-basement, for main lines North-South and East-West.

the city.

We have here twenty-four sky-scrapers forming the heart. Round these are grouped the residential sections of two types, then the cut-off park and finally the garden city.

density of population.

Sky-scraper, twelve hundred persons per acre. Ninety-five per cent. of ground open (squares, theatres, cafes).

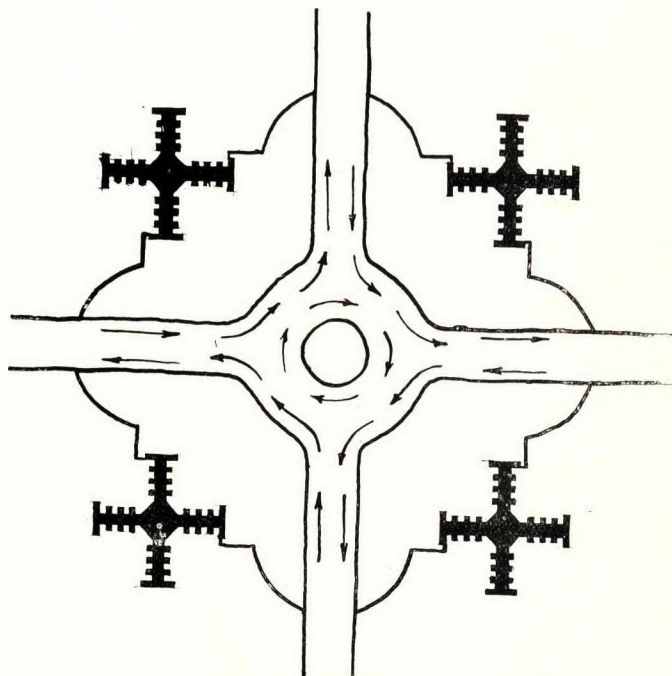
Main Residential Blocks, one hundred and twenty persons per acre. Eighty-five per cent. of ground open (gardens and sports grounds).

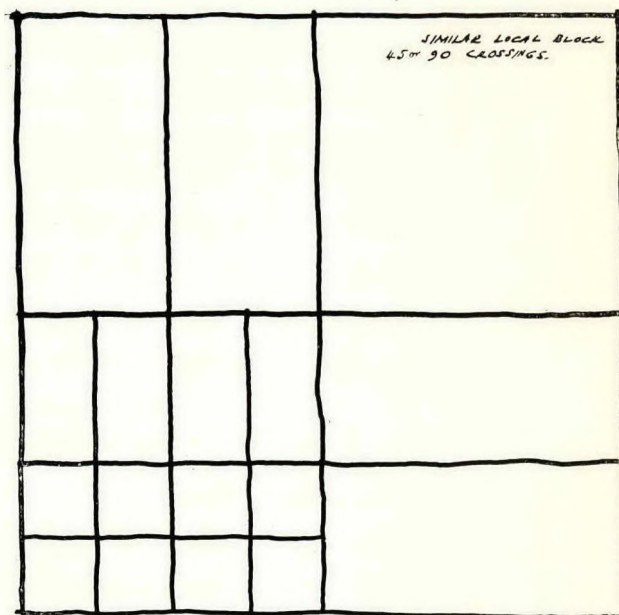
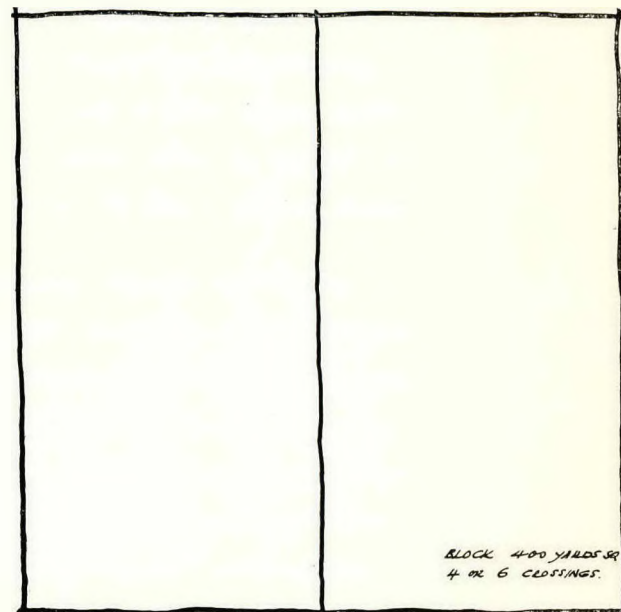
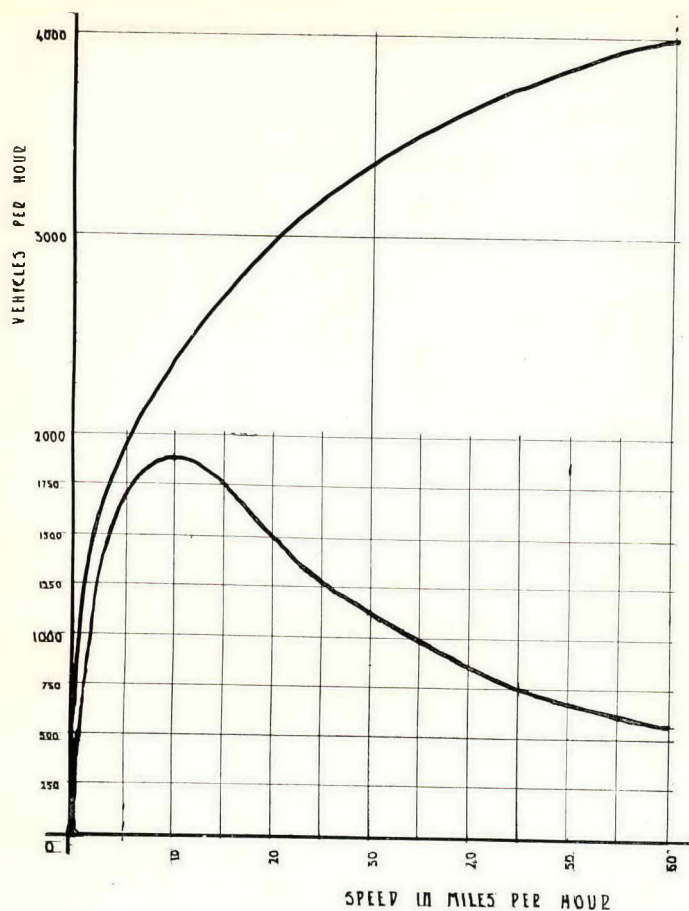
Cellular Residential Blocks. Fifty per cent. of ground open (gardens and sports grounds).

The present densities of Paris and London are one hundred and forty-six and sixty-three persons per acre respectively.

description.

Let me read to you this description of a contemporary city taken from Le Corbusier's book





the frontispiece is the plan of a city for three million inhabitants. opposite this is a view of the approach to the city along the south-north arterial road. the last illustration shews the centre of the city with the great sky-scrapers set amidst the foliage of the parks.

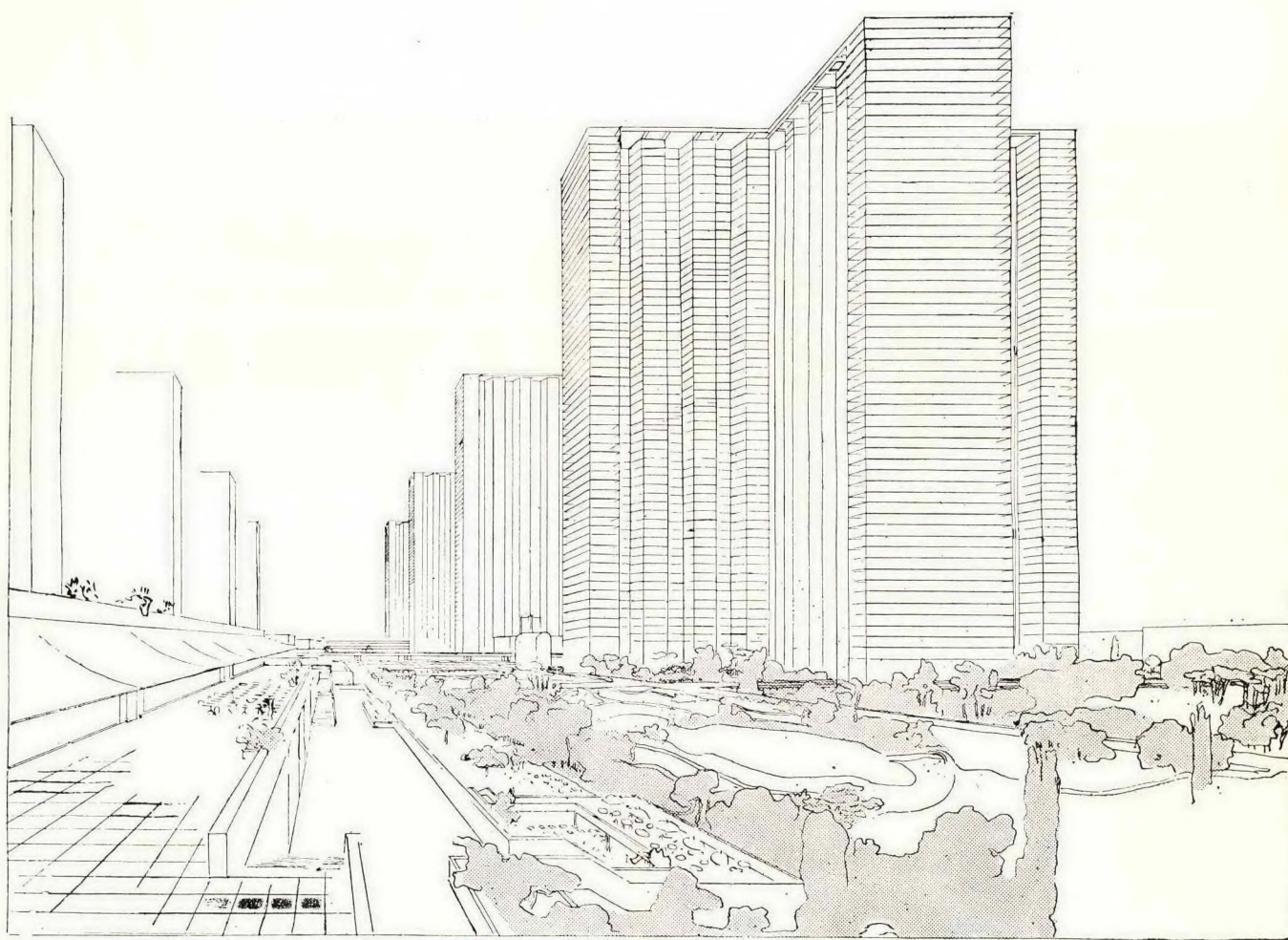
suppose we are entering the city by way of the great park. our fast car takes the special elevated motor track between the majestic sky-scrapers, as we approach nearer there is seen the repetition against the sky of the twenty-four sky-scrapers, to our left and right on the outskirts of each particular area are the municipal and administrative buildings, and enclosing the space are the museums and university buildings.

then suddenly we find ourselves at the feet of the first sky-scrapers. but here we have, not the meagre shaft of sunlight which so faintly illumines the dismal streets of new york, but an immensity of space. the whole city is a park. the terraces stretch out over lawns and into groves. low buildings of a horizontal kind lead the eye on to the foliage of the trees. here is the city with its crowds living in peace and pure air, where noise is smothered under the foliage of green trees. the chaos of new york is overcome. here, bathed in light, stands the modern city.

our car has left the elevated track and has dropped its speed of sixty miles an hour to run gently through the residential quarters these buildings planned in a series of "setbacks!" (or with projecting salients) permit of vast architectural perspectives. there are gardens, games and sports grounds. and sky everywhere, as far as the eye can see. the square silhouettes of the terraced roofs stand clear against the sky, bordered with the verdure of the hanging gardens. the uniformity of the units that compose the picture throw into relief the firm lines on which the far flung masses are constructed. their outlines softened by distance, the sky-scrapers raise immense geometrical facades all of glass, and in them is reflected the blue glory of the sky. an overwhelming sensation. immense but radiant prisms.

and in every direction we have a varying spectacle. the traveller in his airplane arriving from constantinople or pekin, it may be, suddenly sees appearing through the wavering lines of rivers and patches of forests, that clear imprint which marks a city which has grown in accordance with the spirit of man, the mark of the human brain at work.

as twilight falls the glass sky-scrapers seem to flame. this is no dangerous futurism, a sort of literary dynamite flung violently at the spectator. it is a spectacle organized by an architecture which uses plastic resources for the modulation of forms seen in light.





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music and pictures



nancy courtney acutt

Monet acquires a lyrical quality in his "nymphs," where light gains the attributes of sound. Thus says Enrique Villareal, writing from Paris, to "La Prensa," Buenos Aires. He continues by stating that this picture is the product of a vibration and contains within both a hierarchy and a gamut. Monet's art is deprived of all natural, realistic or symbolic representation. The real motive or object of his painting is light in its various components and contrasts. Light when broken up gives pure colours, which are the tones of this inharmonic gamut, while the half tones are the notes.

In no artist's work can this kinship between music and pictures be seen so well as in the great work of Monet's—nymphs. Baudelaire, with that mysterious insight that is the privi-

lege of poets, portrays for us this parallel subtlety:—"les parfums, les couleurs et les sons se repondent," revealing to us the intimacy between music and painting.

Without any doubt music, which is above others the emotional art, moves us the more by being immaterial—that is to say that the body has need of—only for the sense of sound. Music awakes our emotional ego beyond all idea of body and form and creates in us the thought of a spiritual world, which can in nowise be compared with the physical and visible universe, in which we live materially. From thence comes the imponderable value of music, incorporated with religious rites to suggest the idea of the mystery of divinity.

Until now in the works of the great artists we have seen no more than a glimpse of the



dream of love
blanc-gatti •

liszt

blanc-gatti •
scheherezade rimsky-korsakov



musical and lyrical inspiration which occur in Monet's finest works. A passage may suggest to us a symphony, but the full phenomenon has not yet been seen.

This lack of a visible and exact representation of a musical sensation can be understood as the majority of painters do not know the inner meaning of music. It is only critical intuition and interpretation which have made possible the discovery of a similarity between pictures and music. These specialists have studied light and colour and revealed to the public the identity of the vibrations.

To realise the agreement of pictures and rhythm it is necessary that the artist not only possesses a knowledge of sound and colour, but also that he is endowed with the psychical qualities to appreciate them.

Lately an artist has appeared who has dedicated his study to a work of much aesthetic consequence. We refer to the Swiss artist Blanc-Gatti, who has exhibited in the salon of the independents in 1929, 1930 and 1931. He has now united an important collection in the rooms of the gallery Bernheim-Jeune.

This artist explains the meaning of his works "afflicted or endowed, whichever you like" says the painter, "I have searched for many years to fix on canvas the luminous impressions felt when listening to music—that is to say the portrayal of colours and rhythm. To appreciate my canvases I only ask you to abandon the traditional conventions, with which we are all impregnated, in regard to painting. No one will find in these works romanticism, nor symbolism, nor improvisation, nor any kind of phantasy, only the construction seen in the music, the progression, of a theme, the weaving of a melody, the mathematical precision which results in a harmony of colours. There is no thing here that can be interpreted 'natural form,' 'spiritual form' or 'musical form,' but only the illustration of music by the graphic representation of rhythm."

Nothing in the pictures is the product of an improvisation. On the contrary the artist has known how to construct a picture where each note has a corresponding colour value. Colour has crossed the musical arabesques. The artist does not pretend that he has transposed exactly, note by note, from a musical work. His pictures are not—

nor can they ever be—any more than illustrations of rhythm, obtained by the application of colour, which value vibrates in accordance with the sound vibration. In his pictures he has used tones and half tones approximating to paint and music.

If we can now realise the complement between sound and light. If the time or rhythm of music corresponds to a geometric and chromatic value, it follows that the artist can give a plastic interpretation to a musical work. Undoubtedly we cannot give exact interpretations or graphic translations, but we may state that the rendering gives us an idea of the rhythm. This alone should make us give serious consideration to the works of Blanc-Gatti. We might go further and find in them a proof of the rhythmical order which rules all the arts. Anything that goes beyond its limits, anything that is not subject to its laws, anything that phantasy produces and that has no order and proportion can not be called beautiful.

In this way music, a worthy means of visual expression brings us to the same source of order and proportion. The works of Blanc-Gatti have the value of a forerunner. Looking at these canvases, in which the order

of rhythm can be seen, the colours give us a musical sensation, which we can gather from no other concrete form. This is what we learn from Blanc-Gatti's works :—that colour by itself, like sound, can transmit to us an idea of beauty.

“Within the limits confined by a frame a picture may obey the laws of immutable rhythm, may be conceived entirely with purely plastic elements. Colours and planes may have movement and harmony equal to the musical work which evokes them.” And Blanc-Gatti has attained this in his works, even if their abstract value has given them a stamp of pedantry. Apart from their intellectual value the paintings appear simple and ingenuous, like pure emanations of a pure spirit.

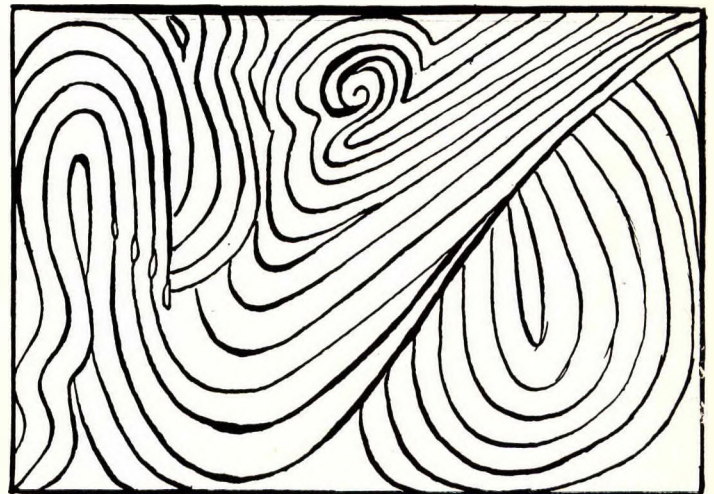
Art students should take this as a great lesson. An artist should not and cannot subject himself, as a slave, to that realism which surrounds him and appears to be the truth. Truth in art is submerged to emotional value, individual to the artist and to him imponderable, a mixture of instinct and reason, which conveys the idea to us and stirs our emotion, both subdued to rhythm, to harmony and to order.

• translated from the spanish by nancy courtney acutt

From personal experience I feel sure that any art student who has a feeling for music should be able to detach himself from the practical world and gather a rhythm from certain airs which he knows well. Then the next step is to form this rhythm into a concrete design. This can only be arrived at when the student is in harmony with his surroundings. It is all very well for me to write in this strain from a quiet farm. The distracting noises of a town would tear the student from his thoughts and the pattern would emerge in a chaotic state.

The best suggestion is to take a gramophone or, better still a friend who plays the violin really well, out into the country and find a secluded spot where this attempt could be made. Some students may be lucky enough to have very quiet rooms, where they can turn on some delightful aria on a soft toned gramophone and then work out their design. I have done this since 1927, so was not copying Blanc-Gatti.

massenet's "elegie"



The results are interesting, for instance "Ave Maria" sung by McCormack brought in an angular figure with a halo, which one imagines portrays the Virgin Mary. This well becomes one who is a count of the Holy Roman Empire and who carols with ecstatic fervour that is evident even on the machine and which transmits itself on to the papers. But no such figure occurs when Caruso sings the same "Ave Maria." His design is one to represent noise, as the great tenor's thoughts for himself and his voice come through the record and direct the pencil.

The results are only in black and white and do not pretend to give full value to the airs, but only the effect of the rhythm. They can be coloured afterwards in accordance with the imagined tints given forth by the vibrations. This illustration of Massenet's "elegy" shows the weaving of sound reflected through the pencil when one allows oneself to be dominated by the musical work.

Even as a child, brought up in a most musical city, Buenos Aires—designs formed before my eyes when listening to well known airs and there are many who have had similar experiences. Then sometimes at the opera, where everything accorded to an aesthetic mood, a desperately quiet audience, a perfect orchestra, first rate voices, the vibrations of sound would resolve themselves in colour.

The weaving of sound into pattern can be seen in Bach's works. This composer's music does not form those bold arabesques pictured by Blanc-Gatti or the whorls and spheres produced by Caruso's songs. Bach's melodies give an intricate warp and weft, easily visualised by those who submit themselves to his influence, allowing the subconscious self to form them into designs. Blanc-Gatti's expression "the illustration of rhythm" can then be produced and some remarkable pictures will result.

england re-visited: some impressions

by robert howden

The tendency of English architects is distinctly to depart from the traditional styles that have dominated their designs for the past half century.

There seems, however, to be some hesitation as to which direction the next move should take. They have certainly arrived at the stage of plain surfaces, abolition of cornices, etc., and a judicious placing of sculpture, but there seems a halt at this position and a fear of going further in case it may undo the good already done.

A few examples exist of more or less copies of bad examples from the continent but these convey nothing but that they are copies and do not come into the question of the evolution or transition that is taking place.

Given time I think the English architects will evolve a twentieth century type of civic architecture, but I consider it will be much more based on the traditional type than those examples found on the continent.

When Sir Herbert Baker was reproached for designing the Rhodes Memorial Hall, at Oxford, in a traditional way, harmonising with its environment, he replied that he would not like to see the modernist run riot in Oxford. Now this reply is applicable to almost any part of England and to some extent must curb the enthusiasm of the ultra modernist.

And even in new townships and suburbs where, if desired, the modernist could have full sway, you find very little attempt to go further than I have described.

It is unfortunate that many of the largest buildings recently erected in London, particularly in outstanding positions, have been entrusted to men of little character and initiative and though the designs are not displeasing they nevertheless could have been done by any student from the text books at his disposal.

Regarding cinema designs, the most successful are undoubtedly on modern lines, this type of design lending itself admirably to the requirements. The general arrangements are usually one large ground floor and one tremendous gallery, but unfortunately when you come to buildings seating four to five thousand people the tendency to bring the front of the huge gallery almost on to the screen necessitates a particularly steep gallery so that even when sitting well back one is disposed to get quite a giddy feeling.

Regarding construction the incongruous position still exists in London, viz: that all large buildings are erected with steel construction while reinforced concrete is known to be much cheaper. The reason given is that the Government and the Banks are so bound up with and interested in the steel business that they cannot afford to let it go under.

Some very fine war monuments have been erected throughout England, but none so beautiful as Sir Edwin Lutyens' Cenotaph in Whitehall. Though this monument has been the prototype of many others it still stands as the most beautiful and best proportioned of them all. I am still amazed at the incongruous position of the dates on these monuments. I could only find two monuments in England with 1914-1919 on them, one the Cenotaph, the other the Fusiliers Monument in Holborn, every other monument being 1914-1918, including the Unknown Warriors Tomb. The reason why all Colonial monuments are 1914-1919 must have been that they have taken the Cenotaph as their guide. People in England, however, seem to be quite satisfied that the war ended on Armistice day in 1918 and not on the day of the signing of the declaration of peace in 1919.

Genuine industrial projects have no difficulty in finding money. The banks at the instigation of the Government are giving no more than one per cent. on fixed deposits, the reason being that investors will be forced to lend their money on industrial concerns to

obtain a decent rate of interest and which will incidentally prosper trade.

This together with the steel industry I have mentioned are but a few of the many of the artificial methods adopted by the Government in the country's interests.

The speculative builder still exists and appears to be doing well but I must give him his due in that his buildings to-day are streets ahead of his predecessors' of the last generation. It is true that in most cases he employs a qualified architect to design his buildings, but the fact that such designs are approved by him and appreciated by the general public as purchasers, shows that at last the public is showing a keen appreciation of what is good.

A most interesting innovation in exhibiting building materials has been made in establishing a permanent exhibition called "The Building Centre." It occupies three floors in a Bond Street shop, controlled by a committee of architects and others, and though the space allotted each exhibitor is not large it seems sufficient. The chief Law governing this exhibition is that immediately anything new comes out room must be made for it by scrapping something old. There are eight hundred firms exhibiting and it is being well patronised by architects, clients and builders, numbering two thousand daily, and is proving a great boon to those anxious to keep up to date in all matters connected with architecture and building. One of the most interesting things I saw there was flexible or bendable plate glass, claimed to be unbreakable. It certainly was most uncanny to see quarter inch plate glass bent about like a sheet of stiff rubber and banged with a hammer which would have splintered ordinary plate glass in all directions.

The architects in England are having a bad time as elsewhere, but the Institute has the matter well in hand and is organising a fund by which those in need are cared for and in return they are employed measuring up old buildings of which no records exist.

Owing to the depression, there have been rather fewer art sales, taking the Union as a whole, and buyers have not been so numerous. Still, several of the better known painters such as Roworth, Volschenck and Pierneef, have secured fairly good prices. More and more the tendency is for artists to have individual sales rather than to join in the general exhibitions. Obviously the personal touch, since the tendency in South Africa is to buy pictures for the subject or the artist rather than for any outstanding intrinsic merit, makes the individual exhibition usually more profitable to the artist. In the case of the less talented, this can be readily understood, since the test of a general exhibition is harder on the amateur or weaker professional, while the more experienced painter is inclined to resent being placed on "a line" that includes the work of those he regards as inferior artists.

Here, in the north, at all events, there is nothing to indicate any new talent. W. H. Coetzer had a highly successful exhibition from the financial standpoint. Artistically, as he himself admits, he seems to have come to a standstill. He has acquired the facility that seems to come quite readily to South African artists when they have reached a certain standard. A fatal facility since the work turned out is neither new nor original. The succession of mountain scenes, sunsets and seascapes—all more or less of a sameness in colour and atmosphere, which is supposed to represent South Africa, does not suggest that South African painters will achieve immortality on the present lines. Perhaps when they have weaned themselves from the idea, so generally prevalent, that the great South African masterpieces of the future must delineate South African scenes, the landscape painters in this country may make more rapid progress.

In regard to portraiture, it must be confessed that the really capable painters may be counted on the fingers of our hand and there is no indication, as yet, that the rising

generation includes any new artist of outstanding ability.

One of the most interesting exhibitions here during the year was that of Mr. Howard Pim's etchings, dry points and mezzotints at the Johannesburg Art Gallery, the finest black and white collection in this country and in itself a liberal education to art students in Johannesburg, as well as to those of the lay public who take an intelligent interest in pictures. Mr. Pim's action in loaning selections from his collection for exhibition in various towns of the Union is one of the most useful and profitable ways, for both students and the public, of encouraging an interest in art and providing an incentive for art education in South Africa. The exhibition contains examples of work by some of the great masters that students could only hope to see otherwise by visiting some of the big European collections.

The Governor-General's collection of old masters including historical portraits by Van Dyck has also afforded local art students an opportunity to see works of a kind not often seen in South Africa. The fact that His Excellency take a personal and intelligent interest in pictures has helped to stimulate art movement in different parts of the country.

The new Johannesburg railway station has given an opportunity to utilise local decorative talent. Some of the wall-paintings by J. H. Pierneef are very effective and give the traveller a good general idea of South African scenery from a point of view other than photographic. Van Wouw's "Transport" bas-reliefs over the main entrance give a painstaking and generally artistic impressions of the earlier days up to the time of the modern railway locomotive. It is unfortunate that the original design of the railway station has been so modified as to remove any architectural features of interest, with the result that the exterior of the largest building in Johannesburg is neither attractive nor in any way worthy of the largest city in South Africa.

The exhibition of crafts at the City Hall had many features of interest. From the pictorial point of view, the main interest lay in the loan section. The handwork, in many instances, showed both skill and ingenuity on the part of the craftsmen.

Several sales of paintings and etchings by overseas artists were a feature in Johannesburg this year. On the whole, the quality of the etchings was above that of the paintings. Names alone cannot always draw purchasers. Prices overseas have fallen so low recently that work by well known artists has gone for a mere song. On the other hand, the tendency shown recently by local auctioneers to import some of the early and not very successful work of painters who afterwards became famous is to be deprecated, if only because it can scarcely increase the reputation of the artists concerned and tends to discourage future buyers.

An attempt has been made to increase interest in the South African Institute of Art by the formation of branches or study circles affiliated to the Institute to take up more intensive study of those branches of art for which the respective circles may be formed. The main difficulty appears to be to find sufficient genuine students to take such study seriously. It is an indication that Johannesburg artists have not sufficient leisure or enough of the missionary spirit to make some attempt to form public taste. Perhaps, though eventually it is in their own interest, it can hardly be expected. But what might be expected is that they should adopt a less passive and even antagonistic attitude. As at the bottom of his heart, each artist imagines that his is the right interpretation, a broader attitude towards the more cultural side would in itself tend to a higher standard among the general public in art matters and incidentally, widen the market for his work.

The Capetown Art Gallery, in conjunction with the newly formed "National" Academy is holding its second annual exhibition in January, 1933. Conditions of entry appear to be similar to those observed in the other South African exhibitions except that pictures or drawings "must, if possible, be in a gilded frame separately." Works by deceased artists are admitted within twelve months of their death.

The Friday Club still appears to be carrying on successfully. Some of its members have turned out quite the best and most original work seen in Johannesburg of recent years, certainly as far as the younger generation is concerned. The third exhibition of this club is being held as these notes go to press and will, I hope, receive the encouragement its efforts always deserve.

A large amount of modelling has recently been done in Johannesburg of a very varying quality. Some work of a rather "ultra modern" type seems to me to have considerable character even if the pose is rather devious. In the case of one or two of the younger students, there is a distinct need for wider experience such as can only be obtained overseas. Unfortunately, the consideration always shown to beginners or to local artists generally, in the press and by the local public tends in some cases to give such work a somewhat meretricious value. This, especially with the younger artists, makes them take their work more seriously than is always justified and to resent any criticism, however moderate or well intentioned. The fact that a young Transvaaler has been awarded the prize for the sculpture at South Africa House should be of good augury for our younger sculptors. Work of this kind, however, is often of a very stereotyped pattern and it will be interesting to see in how far this new artist has been able to interpret South Africa.

port elizabeth building collapse case

the judgment

His Lordship, in giving judgment, said : It is not necessary to hear Mr. Reynolds in this case. As the result of the circumstances, which have been set forth in evidence, the two accused found themselves early in December last year, associated together as contractor and architect respectively, in the initial stages of the task of pulling down this portion of building in Main Street, the form, dimensions and construction whereof has been sufficiently described. While they were so engaged, and admittedly had sole charge of the premises, and sole direction of the enterprise in question, the entire building suddenly collapsed with the result that in that portion known as Number six Main Street one person, and in that known as Number eight Main Street six persons were killed. The Crown charges the two accused with culpable homicide on the ground that these deaths were directly due to their negligent execution of the work, upon which they had embarked, and it seems proper at the outset to point out that the allegation against them as unfolded by the evidence, is strictly alternative in its character.

The first of these alternative charges, as the Court understands it, involves an accusation that the accused of set purpose, brought about the sudden collapse, which occurred on December 24 last, insofar as the premises known as Number two, four and six were concerned, and otherwise it is said that the execution by the accused of the task of demolition, from the date of their joint embarkation upon it, viz., December 9, was affected with such carelessness, such neglect of the requisite precautionary measures has led directly enough to the fatalities to render the two accused criminally responsible.

In reference to the first of these alternative charges the Court comes without any hesitation to the conclusion that it has not been established. There are salient features of the conduct of both accused shortly prior to the catastrophe, which must be taken clearly to negative the existence of the intention imputed in this connection to them, and there are besides the emphatically-expressed opinions of a number of expert witnesses that the "dropping," or sudden collapsing, of the

arches of Numbers two, four and six must inevitably and obviously have brought in its train the immediate downfall of the adjoining shop, wherein the accused most certainly knew that business was still being conducted.

Impossible to Attribute.

This evidence, in the light of the surrounding circumstances, makes it impossible to attribute to the accused any such intention as the Crown seeks to impute, and thus the Court is spared the necessity of considering either the effect which it should properly give to the defence's failure to put the first accused's son into the witness-box—a failure which has been commented upon in the address just at the conclusion of the learned Counsel for the Crown—or that of the evidence led on the Crown's behalf, which it has been claimed, points in a contrary direction, particularly that given by the witness McWilliams as to a remark said to have been made to him by the first accused after the collapse and to the effect that he had intended to "drop" the three arches constituting the portion of the building to be demolished. In regard to this, however, it seems fair to state that the Court thinks it more probable that both the witnesses concerned are labouring under a bona fide misapprehension rather than guilty of intention to deceive the Court.

Gravamen of Charge.

Coming now to what may be described as the gravamen of the charge against the accused, namely, that it was the direct result of their negligence in carrying out the task of demolition that caused the fatalities, the Crown alleges on their part certain faults of commission and others of omission, which, it says, directly occasioned the fatalities which occurred. Under the former head stand the removals of various portions, and interference with others, of the premises in question, before adequate precautions in the way of "shoring" or "rough-centring" were taken, and among the faults of omission has been arrayed such and like failure at various points to render these and adjoining premises safe to human life.

Considering this particular charge, it is of fundamental importance for the Court to bear in mind that the accused are charged in that

they—to quote the actual words of the indictment—did “wrongfully and unlawfully kill” the seven deceased, and to sustain such a charge it is self-evident that it must be proved, and of course proved beyond reasonable doubt, that they “killed” them. In other words the Crown has resting on its shoulders the burden of proving that the accused “caused the deaths” of these seven unfortunate victims of the collapse ; that their conduct it was, which was responsible for the fatalities.

Not Sole Cause.

It may be pointed out in passing that this is not of course, meant to imply that their conduct must be shown to have been virtually the sole cause thereof, or even the most effective cause thereof : it would be enough that such conduct of theirs were proved to have been a materially contributing cause : the connection between such conduct and the fatalities must only not be too remote. This point is more fully set forth in the standard South African work on criminal law. Gardiner and Lansdown’s principles, third edition, Volume one, page seventy-eight, where the learned authors say : “Criminal charges of negligent conduct frequently involve the question whether or not the negligence of the accused was the cause of a particular result. Thus on a charge of culpable homicide by negligence, to sustain a conviction the evidence must not only prove that the accused was guilty of negligent conduct ; it must also prove that such conduct was the cause of the death which was in question.”

It is just on this point, however, that the Court finds the evidence inadequate to convince it to the requisite degree, this being a criminal charge, that it was the conduct of the accused in connection with this building, that in the sense in which the indictment must be understood, killed the deceased.

Witnesses Compared.

Many witnesses, whose views are apparently entitled to the highest respect, have very definitely stated that in their considered judgment the stability of this building was not adversely affected as a result of the operations conducted by the accused, and in view of this volume of expert testimony, together with what I venture to call the unconvincing character of the testimony given by the engineer-witnesses called on behalf of the Crown ; in view of all this and not neglecting

the evidence pointing in the opposite direction led by the Crown, the arguments of learned counsel, the absence from the witness box of young McClelland, and lastly what I may candidly confess was my *prima facie* impression to the contrary, one which I venture to think the ordinary layman would share, still the Court affirms that it has not been proved to its satisfaction that the accused “caused,” in the requisite sense, the deaths of the deceased.

This conclusion strictly concludes the case in favour of the accused, but assuming it to be erroneous, and that the conduct of the accused was the cause of the deaths in question, that they did “kill” the deceased, still it must be shown that it was—again to refer to the terms of the indictment—their wrongful and unlawful cause, that the accused “did wrongfully and unlawfully kill the deceased.”

Appellate Decision.

It is clear in this connection that to support its charge of wrongfulness and unlawfulness the Crown relies on what it alleges was negligence on the part of the accused in conducting their operations upon this building, and consequently the Court has to decide whether this charge of negligence has been established. In determining this question it must in accordance with the decision of the Appellate Division in the case of *Mitchell v. Dickson* (1914) A.D. at p.525, determine the quality of their conduct in accordance with a criterion derived from the practice of ordinarily prudent and efficient contractors and architects, not necessarily endowed with the highest possible degree of professional skill, and the Court applying this test to their conduct in the light both of the evidence as to the surrounding circumstances and of the professional testimony adduced on both sides, and again not neglecting considerations pointing to a contrary view, finds itself precluded from holding that the imputation of negligence has been substantiated.

As a result therefore of these conclusions the Court’s duty is clear, that it must hold the accused not guilty and discharge them.

On the application of Advocate Reynolds the Court ordered the payment of witness’s expenses to all the necessary defence witnesses.

The Court immediately adjourned and Messrs. McClelland and Eaton were at once surrounded by a group of friends eager to congratulate them on the outcome of the trial.

continued from october issue.

Nothing has been forgotten to make this vertical railway system, serving an actual building population of more than twenty-five thousand persons and an additional estimated daily transient population of sixty thousand people, one of the most efficient, and certainly the best of it's kind, in the world.

The Chrysler Building has a similar system. Twenty-eight signal control high speed lifts and two tower lifts being installed. These lifts, as is the case with the Empire State Building lifts are of the gearless traction type, the driving sheave being attached to the same shaft as the motor armature. The speed of each of the thirty passenger lifts is seven hundred feet per minute, and the equipment includes the signalling system with telephones.

There are in addition several "service" lifts (for staff and services) and goods lifts.

Before touching on the principles underlying the selection of the right lifts for various classes of buildings I feel that it would be wise to outline as briefly as possible the various types of equipment so that readers will be familiar with them.

Part II.

An Outline of Modern Lift Equipment

Modern passenger lifts are of two types insofar as the machine is concerned—the gearless traction type and the geared traction type. Either type can be fitted with self levelling equipment.

The geared traction is the older type, the motor being of a high speed and the drive being transmitted through a worm and worm wheel which reduces the speed to the necessary limit. These machines are practicable up to speeds of four hundred feet per minute, and are always used for goods lifts irrespective of rise. The worm reduction gear is not necessarily a source of trouble as, if the equipment is well serviced, no trouble is anticipated; but it will be appreciated that there will be a saving in lubrication, labour and upkeep generally if the gear is not incorpor-

ated in the design of the machine, and also the efficiency is somewhat reduced on account of the gear.

The gearless machine was developed for high buildings and cannot be used with speeds under three hundred and fifty feet per minute due to the fact that the motor, being coupled directly to the driving sheave, and of special design, has to be of abnormally low speed, and the minimum speed is about seventy-five revolutions per minute. This actually gives a car speed of seven hundred feet per minute, but by roping the lift two to one, as with heavy goods lifts, the speed is halved and the load doubled. These machines can, accordingly, only be run on direct current and, therefore if the suitable direct current power supply cannot be obtained they are operated on the variable voltage or Unit-Multi-Voltage system.

Unit-Multi-Voltage System of Control

This system can be applied to geared as well as gearless machines although actually geared machines for small buildings are generally arranged with resistance control. "U.M.V." control only applying to geared machines for high class installations where the height of travel is not sufficient to warrant gearless machines.

With this system the main power supply is fed to an automatic starter which starts the motor generator. The motor is wound to suit the power supply and the generator feeds current to the main driving motor of the machine at a constantly increasing pressure, thereby obtaining perfectly smooth acceleration.

Similarly when the lift is stopped the voltage drops gradually, so bringing the car to a gradual stop; the drop in speed being hardly noticeable. This system is necessary in conjunction with certain types of control.

New Methods of Control

Every architect is familiar with the application of car switch control, automatic push button control and the combination of the

two controls styled dual control. These are satisfactory to a point, after which consideration should be given to the modern controls.

For intensive service, where quick stopping is desired, car switch control is modified and termed "flying stop" control. A selector is fitted on the motor room, which is really a scale model of the lift in skeleton form. A nut worked by a screw moves up and down between guides; its position corresponding with the position of the car in the shaft. When the lift is working on flying stop control the car switch handle is moved to the extreme position and, if when approaching a floor, a stop is desired, it is brought to a certain point and the selector "takes over" bringing the car to a perfect level after an imperceptible braking down of speed. This means that the operator can fill the car at the ground floor and concentrate solely on stopping at the correct floors, wasting no time in judging accurate floor stopping. This control is, of course, used on high speed lifts and in conjunction with the U.M.V. system.

Collective Automatic Control

Is the modern development of single automatic push button control. On an ordinary push button lift when a passenger occupies the floor, the landing button circuits are disconnected and thus other intending passengers at the landings are obliged to wait until the lift is free. When it is free it will respond only to one call and cater for only one floor at a time. This might be suitable for small apartment buildings but in the larger residential blocks or in office buildings waiting about can be distinctly annoying and a large percentage of lift accidents are caused by impatience. Collective Automatic Control was devised to cut out these annoyances and it is only due to the increased cost that it has not entirely replaced the old type of control. The operation is, briefly, as follows:—

The car waits at the "home station" which is fixed by the engineers and is generally the entrance floor of the building, and to which station the lift always returns if no calls are registered. Assuming that a group of passengers enter the car, each one pressing the car button for the required floor, fourth, third, sixth, second and ninth.

When the gates are closed the lift automatically starts on the upward journey and the first stop will be at the second floor. The passenger leaves the car and when the gates are closed the car continues its journey, stopping at each floor for which a call has been registered in correct sequence, even though the calls were made out of sequence. If a wrong button has been pressed the car stops at the floor, and if the gate is not opened waits for a fixed period—say nine seconds—then proceeds. Should a passenger at a landing have pressed an UP button whilst the car was on the UP journey, the car will, provided that it has not yet reached him, stop at the floor and "collect" him. In the same way passengers who register down calls are collected on the down journey. This method of control can be applied to geared machines with or without U.M.V. control, and gearless machines with U.M.V. control. A selector is used to register the calls in conjunction with relays. A lift fitted with this control does not rely on speed to give service, consequently large capacity cars can be used at slow speeds which are not annoying to the most timid passengers.

Dual control embodying Flying Stop Control and Collective Automatic Control is also available, and is applied to high-speed lifts on the U.M.V. system.

Department Store Control

Is a further development of car switch control to suit department stores where the lift invariably stops at each floor and where often passengers on entering the car do not know what floor they want. The control is similar to Flying Stop Control but signals showing the direction of travel to waiting passengers and the position of cars to the operator, are an essential feature. The operator has very little to do as regards controlling the lift, and so can devote his time to directing passengers to the correct floors, and "policing" the car. Automatic door opening gear is generally incorporated.

Signal Control

Signal Control is the best control available to-day for high or moderately high buildings where intensive service is encountered.

The Makers have put all their energies into its development until to-day it is proof

against the human element. The signal control lift has been dubbed "The almost human lift."

The intercommunication signalling system is standard equipment with this lift, which is invariably installed in buildings of a sufficient size to warrant more than one lift.

Each lift has a car control panel on which is mounted the starting handle and the floor buttons, light and emergency switch.

Power operated landing, and car doors are also standard, and U.M.V. is essential.

When a passenger enters the car he "calls his floor" to the operator, who pushes the corresponding car button, and when the car is fully loaded, or there are no more passengers, the driver operates the small handle. The doors then automatically close and the lift starts, to stop at the first floor on the upward journey for which a button has been pressed—the door automatically opening. The passenger or passengers alight, and if there are no waiting passengers on the landing for the upward journey the operator again works the lever, the door closes and the car proceeds. If in the meantime calls are made at the landings for the UP direction the car, if not already above those landings, will stop and the doors will open to receive the passenger. This sequence of events is repeated on the downward journey.

Where two or more signal control lifts are installed the car nearest to the waiting passenger who presses a hall button, and travelling in the desired direction, will stop, and its stopping at that floor automatically cancels the call. There is no possibility of two cars responding to the same call. Directional indicators above the entrance to each lift indicate to the waiting passenger which lift will stop; if he desires to go down the "down" indicator for the lift which will stop in response to his call, will illuminate.

For a group of signal control lifts a "starter's" or "despatcher's" control panel can be supplied when the size of the installation warrants a despatcher. The panel enables the despatcher to control the whole group of lifts, as he can see the exact position of each lift, the floors on which passengers are waiting, and he can call back a certain lift if he considers that there is another conveniently placed to cope with the call. This panel also includes a device for connecting

the landing buttons to a night service buzzer in the car fitted for night service. An automatic telephone for establishing communication with each attendant can also be provided on this panel.

Entrance Equipment

Considerable difficulty has been and is still being experienced in South Africa to popularise the lift entrance door. Collapsible gates are still in the majority presumably because they are cheaper—there can be no other reason. The appearance of a collapsible gate, even if electro-bronzed or nickel plated, cannot compare with the door.

Fire regulations in America preclude to a large extent the use of collapsible gates, and for this reason also the doors supplied are of fire-proof construction, and consequently expensive. Architect and lift engineers, working together, eventually turned the necessity of expensive construction to very good account, and to-day the lift entrance doors are worked in as an architectural feature, as, in addition to the very wide range of stock designs, period designs can be supplied to match the other work in the building should the architecture follow a definite period design.

Architects often prepare their own door panel designs and the results in most cases are quite satisfactory.

The doors are of steel, or steel with wood facings (laminated, with the inner laminations of steel and the outer of wood).

There are distinct disadvantages in the collapsible gates. The shearing hazard is ever present. It is difficult to clean as the oil used for lubricating collects dust and it cannot possibly be worked in with the general architectural scheme. Collapsible gates also increase draught in the lift shaft should it be of the brick enclosed type.

Where a staircase well is used for the lift, collapsible gates, are, of course, the usual thing, as they match the lift enclosure, but lift enclosures are not modern, being expensive and unhygienic, the appearance not being at all consistent with the cost. It is possible to make use of an enclosed shaft even though in a staircase well, and this has been effectively carried out in a number of instances.

To be Continued

professional notes and news.

Temporary Connections for Power.

The Master Builders and Allied Trades Association have had under discussion recently the difficulty which its members have had in tendering for contracts in which no Prime Cost item is given for temporary connections for power for hoists, etc.

The Association took this matter up with the City Council and endeavoured to get the Electricity Department to lay down a standard rate for all connections, but this was not found possible as the rates charged have varied from £3 to as much £45 depending on the the size of contract.

The Association suggested that a Prime Cost item should be included in the Bill to cover this, as it was not possible for a builder to ascertain before tendering what the Municipal charge for this service would be.

This matter was discussed by the Practise Committee of the Transvaal Provincial Institute and it was agreed that the suggestion to include a Prime Cost item for this service in the Bills of Quantities should be adopted.

Mr. L. Grinker is starting in practice as from the 1st January, 1933, at 10 and 14, Ackerman's Buildings, Rissik Street, Johannesburg.

Obituary.

It is with deep regret that we have to record the death, on December 9th, 1932, of Mr. Henry Rowe Rowe, a member of the Transvaal Provincial Institute and of the Chapter of Quantity Surveyors.

Mr. Rowe received his architectural training in Hertfordshire and came to South Africa thirty-six years ago. He was in practice in Capetown and Krugersdorp for some twelve years before settling in Johannesburg. Among the buildings designed by him, and with which he was associated, are Motor Corporation Buildings, Eloff Street, Queen's Court, Bree Street, and the new premises for Messrs. T. W. Beckett & Co., President Street.

Mr. Rowe was keenly interested in Quantity Surveying and was the first President of the Chapter of S.A. Quantity Surveyors immediately after the passing of the Act.

The funeral was attended by many of his Architectural and Quantity Surveying colleagues.

building trade returns, september, october, 1932.

Capetown, September.

St. James' Church, rectory, St. James' Road, £1,800.
J. D. Edwards, house and garage, The Glen, off Highlevel Road, £1,600.
J. Bain, flats (4), garages (2), cor. Kloof Road and Avenue Francaise, £3,250.
C. B. Innes, flats (4), and garages (4), Braemar Road, £2,750.
T. B. Kay, house and garage, Thornhill Road, £1,500.
Land and Finance (Pty.), Ltd. add. rooms, 155, Beach Road and Bay Road, £1,250.
J. Rubbi, store and shops (2), cor. Buitengracht and Prestwich Streets, £5,000.
S. Anderson, house, De Hoop Avenue, £950.
Macan & Muller, alts. to Hotel Edward, Mill Street, £1,000.
T. Derry, houses (3), garages (2), Slaney Street, £2,250.
G. D. Smith, houses (2), Palmerston Road, £1,600.
H. R. Hodges, house and garage, Landseer Road, £900.
H. Fox, house and garage, cor. Herschel and Morley Roads, £1,500.
Tiger Oats Co. (Inc. Cereal Manfg. Co., Ltd.), grain store, off Montagu Road, Tiger Oats Estate, £3,000.

J. M. Frisch, house, garage and stables, Lincluden Road, £2,050.
J. Chalmers, stable block, Belmont Road, £3,500.
M. Kyle Anstey, house and garage, Mayfield Avenue, £1,500.
W. F. Stewart, flats (4), Highstead Road, £1,350.
J. Morris (St. Michael's Church), adds. to Parish Hall Rouwkoop Road, £2,000.
C. T. Black & Co., house and garage, cor. Cameron and Portland Roads, £1,450.
M. D. Vickerman, house and garage, Mount Road, £950.
M. M. J. Hendricks, houses (2), Hampstead Road, £1,500.
A. Meurs, house and garage, Lot 178, off Water Street Keurboom Estate £1,050.
S. A. Sampson, house and garage, off Claremont Avenue, £2,000.
C.C.C. (Electric Dept.), junk store, sub-station, Stegmann Road, £1,500.
C. du Plooy, house and garage, Frere Estate, £950.
F. W. M. Raubenheimer, houses (4), garages (4), Roosevelt Road, £3,600.
F. L. Barnes, house and garage, Melrose Avenue, £1,300.
M. Friend, house and garage, Roseville Road, £1,150.
M. Zinman, shops (3), Main Road, £1,500.

Home Endowment (Pty.), Ltd., house, Woodgate Road, £950.

G. H. M. Bobbins, house and garage, Sherwood Avenue, £1,100.

Capetown, October.

St. James Church, rectory, St. James Road, £1,800.

M. B. Norton, house and garage, Ravine Road, £1,800.

V. Viljoen, house and garage, cor. Avenues St. Charles and des Huguenots, £1,700.

J. S. le Roux, addition to Hotel Bordeaux, Beach and Marais Roads, £4,000.

Corporation of Capetown vehicle inspection depot, Ebenezer Road, £8,000.

The Divisional Council of the Cape, additions to premises, Dorp Street, £30,000.

Home Endowment (Pty.), Ltd., houses (2), de Waal Drive, £1,375.

G. Pasha, house and garage, Upper Buitenkant Street, £950.

W. J. Voget, house, Ravenscraig Road, £1,300.

A. Backer, houses (4), cor. Coronation and Melbourne Roads, £2,200.

R. W. and G. R. Gardener, flats (12) and garages (6), York Road, £7,000.

F. W. Raubenheimer, house and garage, Alma Road, £1,350.

G. M. Scheg, house and garage, Valkenberg Road, £1,100.

R. W. and G. R. Gardener, houses (6), York Road, £5,000.

M. D. Vickerman, houses (3) garages (3), Mount Road, £2,850.

T. M. Yeoman, house and garage, Mayfair Avenue, £1,750.

J. Fish, house and garage, cor. Protea and Largo Roads, £1,350.

J. Gentry, additions to St. James Hotel, Main Road, £1,100.

C. Britow, shop, cafe and store, Military Road, £850.

W. Thebus, house and garage, Kirkwood Road, £1,350.

C. S. Eckard, house and garage, Firfield Road, £1,500.

Bloemfontein.

J. S. du Plessis, additions to church, erf 1113, St. Georges Street, £160.

Becket, Son. & Kahn, residence and outbuildings, erf. 2505, Brill Street, £900.

Oranje School, additions to science room, £300.

Number of plans passed, 7; value, £1,580.

German Parsonage, St. George's Street, additions, £200.

I. F. Campbell, Kellner Street, shed, £160.

Total number of plans passed, 11; value, £570.

Maritzburg.

F. Ireland, West Street, dwelling-house, £775.

A. Oakes, St. Patrick's Road, dwelling-house, £650.

H. Thompson, Gallwey Road, dwelling-house, £650.

Dasnath, Pentrich, dwelling-house, £750.

Coronation Brick Co., Chase Valley, brick kilns, £600.

Johannesburg, September.

A. J. Brink, St. Alban's Ave., Mayfair, house, room and sheds, £1,150.

E. A. Ballack, Chester Road, Parkwood, house, room and two sheds, £1,000.

G. Catto, 179, Ninth Avenue, Mayfair, two houses, shed and rooms, £1,300.

City Engineer's Department (Fire Station), Albert, Von Brandis, Kruis and Fredrick Streets, drainage, £1,000.

D. J. Coetzer, Third Avenue, Melville, house, room and sheds £1,300.

J. C. Currie, Tenth Street, Orange Grove, house, room, two sheds, £1,000.

J. C. Currie, Eleventh Street, Orange Grove, house, room, two sheds, £1,200.

Davis and Wells, Sunbury and Lothbury Avenues, Auckland Park, hall, £2,500.

Mrs. M. N. Dawe, Woolston Road, Westcliffe, house, room, shed, £2,500.

M. Golombick, Eighth Ave., Mayfair, house, room, two sheds, £1,400.

Hammon & Co., Ltd., Lower Ross and Lower Page Sts., Doornfontein, 16 new houses, £2,250.

S. Kowalsky, Thames Road and Fuller Street, Bertrams, 14 rooms, £1,000.

W. McLachlan, 5th and 3rd Avenues, Mayfair, two houses, rooms and sheds, £1,300.

Parktown Hill Mansions, Banket and Willie Streets, Johannesburg, flats, £24,000.

L. G. Urquhart, Kerry, Mayo and Carlow Roads, Parkview, house, room, three sheds, £2,500.

I. van der Walt, Leander Street, Kensington, house, room, shed, £1,400.

P. Valisis, Franciska Street, Observatory Extension, house, room, shed, £1,200.

W. White, 4th Avenue, Mayfair, house, room, sheds, £1,100.

Durban, September.

Hava, Mrs., Cross and Alice Streets, flats, £1,400.

Ellis, C. H., Leighton Crescent, dwelling, £900.

Dan Taylor Benningfield, Morrison Street, alt. building, £500.

Harriram, Springfield, two shops, £300.

Fakroodeen, Sayed, Prince Edward Street, add. dwelling, £300.

Rhodesian Timbers, Congella, warehouse, £260.

Ponnasami, Bristow Road, shop and flats, £600.

Baker, C. H., Marine Parade, building, £12,000.

Beach Mansions, Ltd., Marine Parade, alts. building, £800.

Siripat, R., Clair Estate, shop and store rooms, £800.

Seymour, Mrs. S. M., Silvertown Road, building, flats, £1,800.

Arya Yuruk Sabha, Mayville, alts. School, £400.

Arya Yuruk Sabha, Mayville, dwelling, £1,000.

Fakeer, M., South Coast Junction, shop, £300.

Durban, October.

Meyerowitz, N., Catterick Road, dwelling, £1,000.

Osman, Latiff, Old Dutch Road, add. building, £600.

Hundoo, H., Sparks Road, shops, £500.

Johnstone, D. F., 45th Cutting, add. dairy, £700.

Murugan, Cato Manor, dwelling, £500.

Moonsamy, K., Cato Manor, shop, £588.

African Overseas Trade Development Corporation, Devonshire Place, alteration to building, £1,200.

Harris, J., Bartle Road, dwelling, £760.

Moonsamy, Cannon Avenue, dwelling, £600.



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