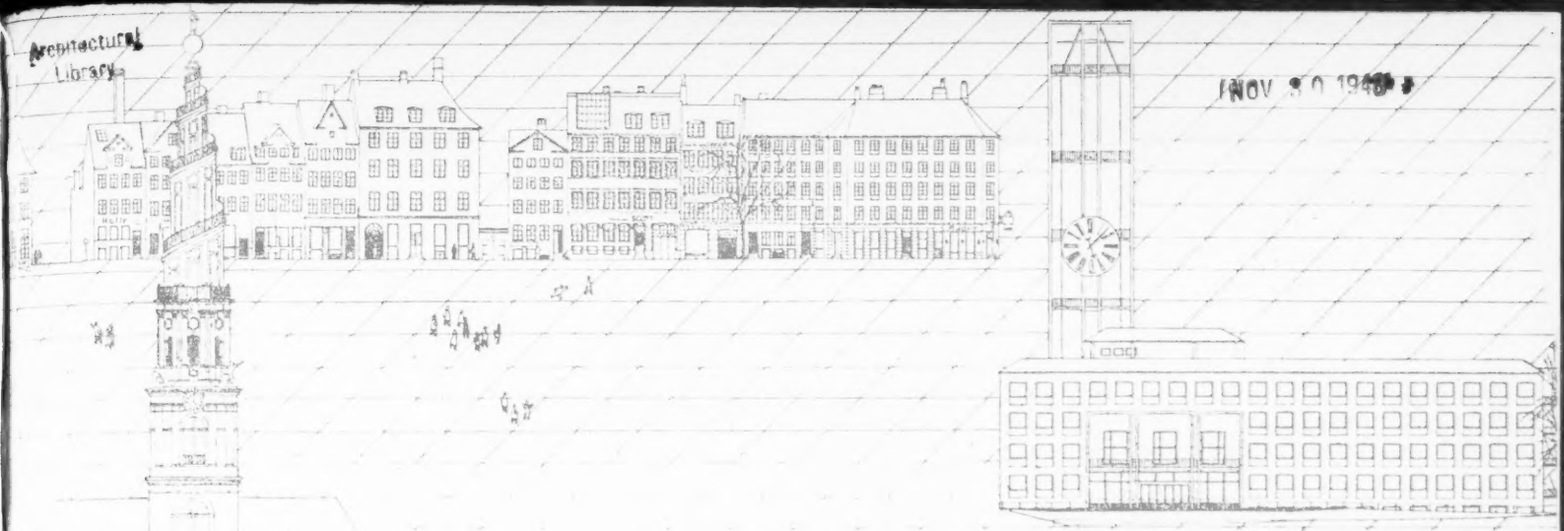
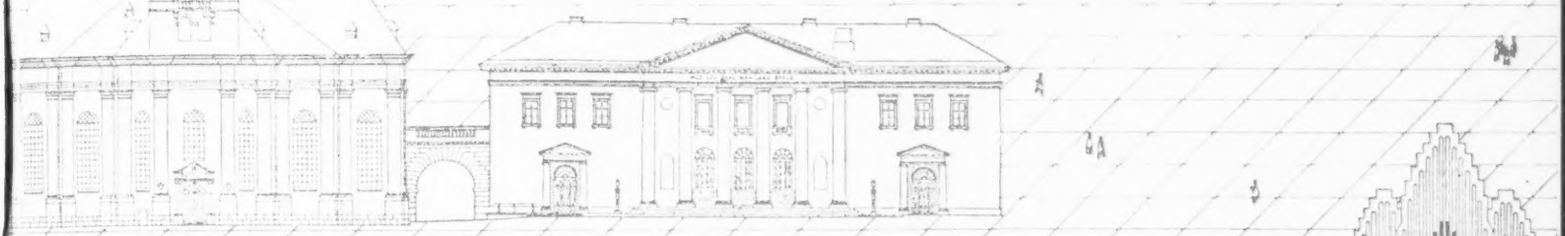
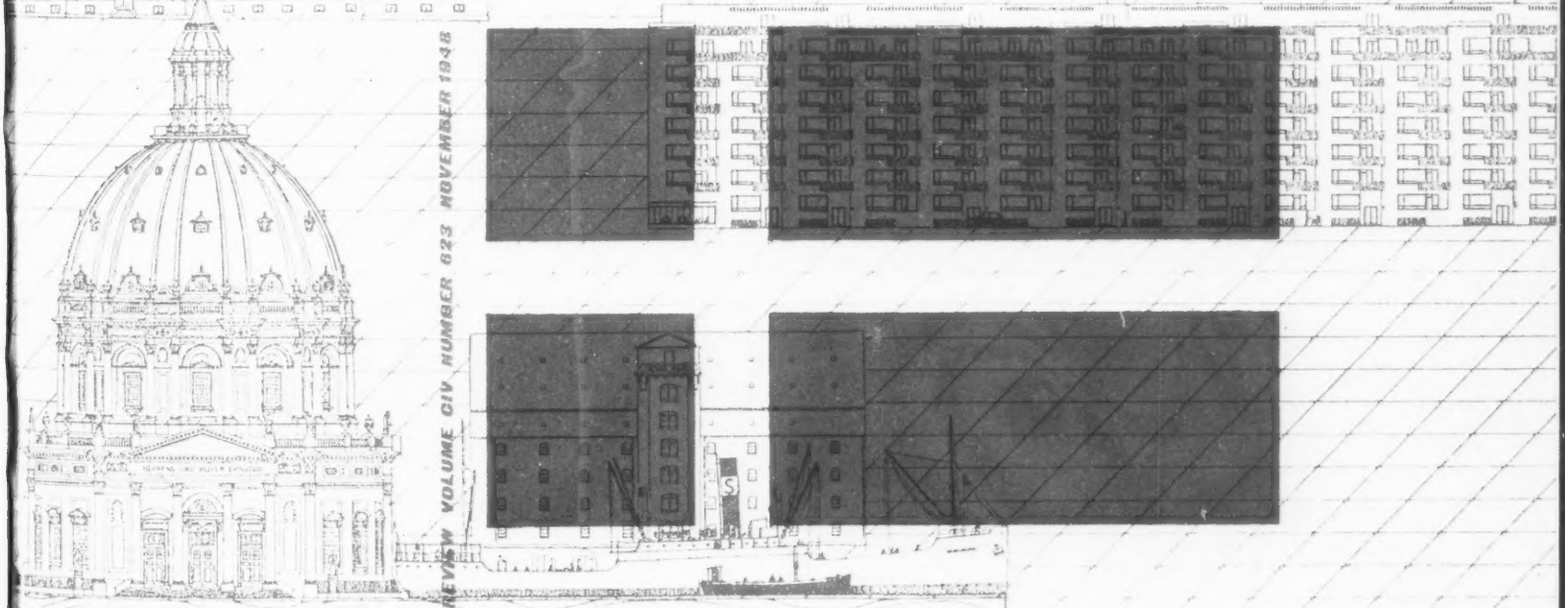




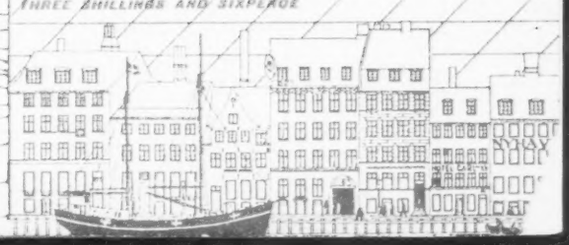
DENMARK

Special Number



THE ARCHITECTURAL REVIEW VOLUME CIV NUMBER 623 NOVEMBER 1948

THREE SHILLINGS AND SIXPENCE



A Special Number of The Architectural Review for November 1948

DENMARK

COVER The drawings, which form a background to the Danish flag, represent a selection of some of the best-known streets and buildings in Copenhagen, and are all the work of Preben Hansen, the Danish architect and artist. Notes on some of the buildings will be found on pages 215-218. The design is by Gordon Cullen.

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THE ARCHITECTURAL REVIEW

9-13 Queen Anne's Gate, Westminster, S W 1
Whitehall 0611

THREE SHILLINGS AND SIXPENCE

FOREWORD BY HR. HARTVIG FRISCH, DANISH MINISTER OF EDUCATION

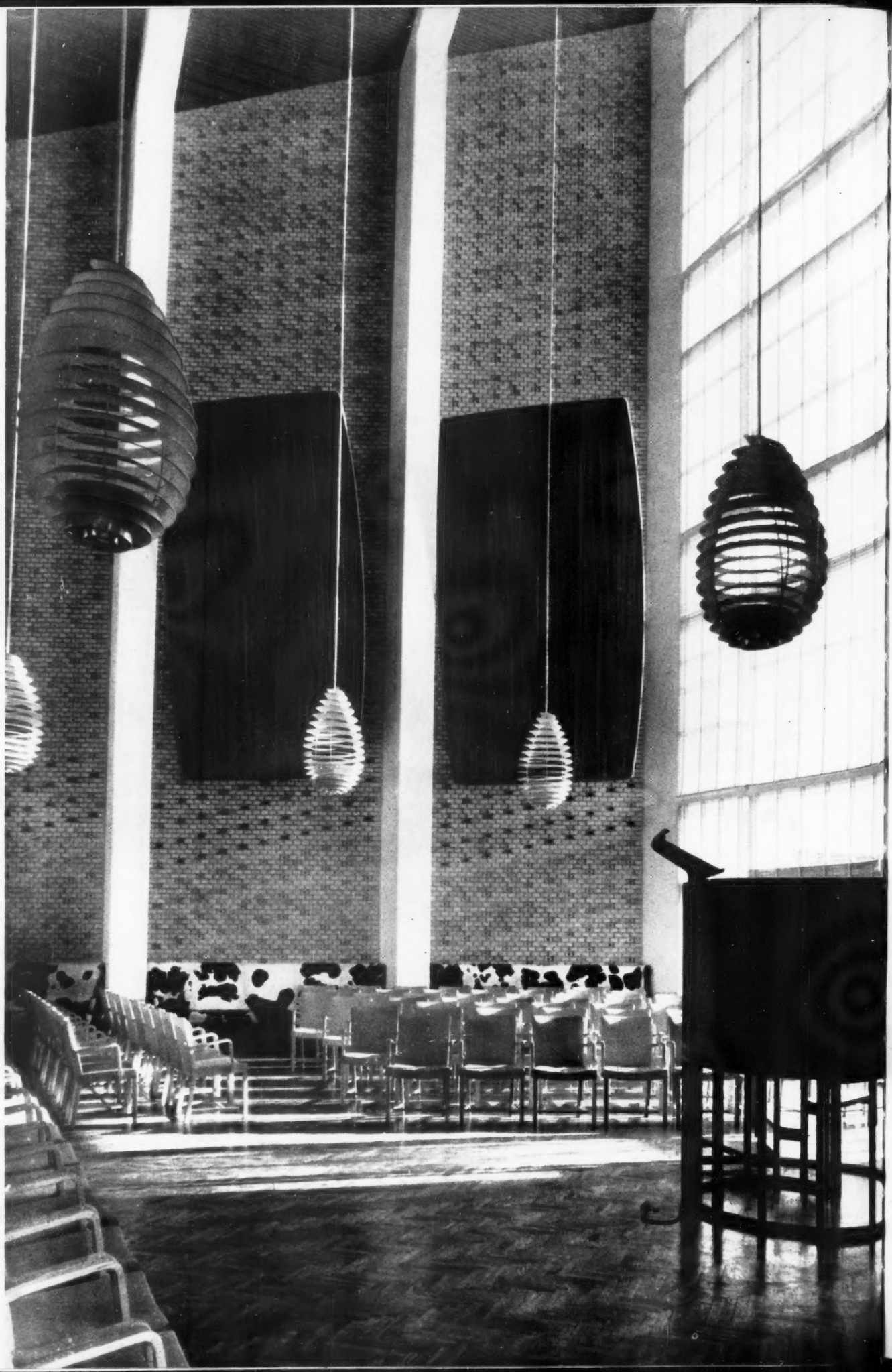
No other art has such intimate connexions with social life as architecture. A picture and a statue can be made and placed on a wall or in a garden and remain there for generations without the public having anything to do with it at all. Of course, the masterpieces of art little by little influence the eyes and hands of the artisans, but architecture has a more direct link with the public and is based on more solid ground both economically and socially.

A building intrudes itself on the eyes of the public and, whether you like it or not, it cannot help expressing the social conditions of its time. Examples of this are the dungeons of the feudal ages, the cathedrals of the time of the crusades, the manor-houses of the renaissance, the huge palaces of absolutism and finally the schools, the homes for the old, the hospitals and the industrial buildings of our times.

I take it as a token of British interest in Danish architecture that the world-known periodical THE ARCHITECTURAL REVIEW *has dedicated a whole number to Danish achievements in the art of building. As Minister of Education in Denmark I am grateful for this honour and I very much hope that this representation of Danish craftsmanship will be a new link between our two nations. During the last war and during the dark days of occupation our thoughts often wandered across the North Sea to the fierce and stubborn British nation fighting so lonely and so long for the freedom of all Europe.*

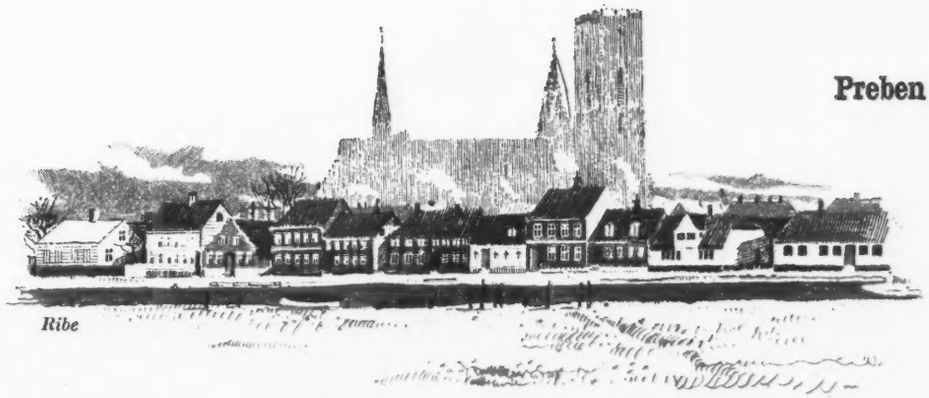
At this time when we Danes have an exhibition in Great Britain showing all that we possess of historic values and genuine Danish craftsmanship, may this number of THE ARCHITECTURAL REVIEW *be a herald inaugurating this new departure in the cultural relations between our two nations and may it bring a message of our friendship.*

Hartvig Frisch



AARHUS UNIVERSITY

This detail of the assembly hall in the new Aarhus University, illustrates several of the more outstanding attributes of Danish architecture at the present time. One is the skilful use of traditional materials in a contemporary manner, and the high standard of workmanship that goes with it; this can be seen in the textured brickwork of the walls between the stanchions, the carefully graded, light to dark, woods of the sounding boards, and in the ceiling panelled in slender planks of wood. Another is the restrained use of bold pattern, seen in the cowhide upholstered wall seats, and the juxtaposition of various planes, curves and angles, in the louvred lampshades and concave sounding boards; in fact, in the whole shape of the hall itself, which is shown in the plan and photograph on page 230.



Ribe

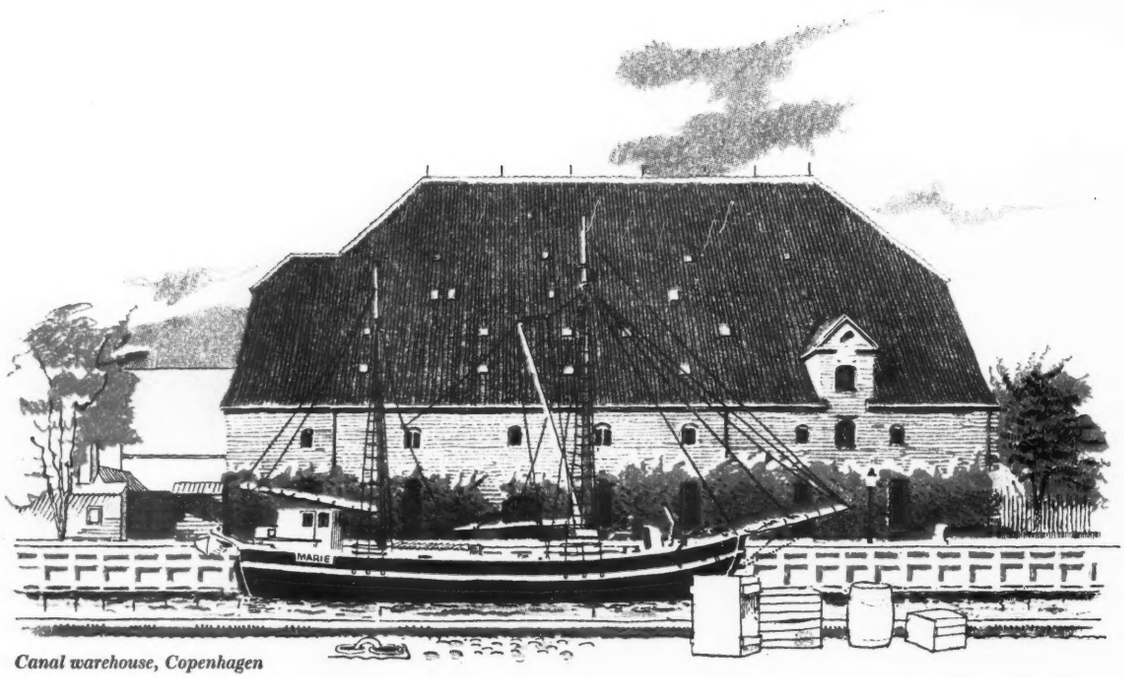
Preben Hansen

LAND AND LANDSCAPE

Lying between the North Sea and the Baltic, Denmark's only land frontier is that which borders Germany in Southern Jutland.

Like the fisherman, whose first glance every morning is towards the sea, the whole land is dependent upon the ocean, whose eternal rollers break upon the long coasts of the Jutland peninsula, and upon the many greater and lesser islands. A wealth of bays and inlets increases this interplay of land and sea and the Danish beechwoods grow right out to the edge of the slopes and cliffs that border sound and strait. In a few places only do the white chalk cliffs break through the soil, although chalk from the floods of the immeasurable past is the very foundation of the land. Then, where Denmark now lies, there was but deep sea, and only the highest point of the eastern island of Bornholm raised its age-old peak—formed from cooling lava of volcanic streams. Throughout the ages, minute formaniferae have sunk, with their tiny shells, down to the ocean bed, there to form, layer upon layer, the foundation of the Danish countryside, which later was yet further carved out by mighty glaciers of the great ice-age. When the ice-cap had melted, Denmark lay with the same surface it has to-day, with the same plains, hills and dales, formed of gravel and sand from glacial streams and of heavy morainic clay. Its rolling surface resembled that of the sea from which it sprang. The deep fiords and broad river valleys of Eastern Jutland are a peaceful monument to the glacial age.

Nowadays it is seldom that the ice and snow of winter lie heavily on Denmark. The climate is mild. On the Continent east winds can bring bitter cold or summer heat, but it is the west wind that rules Denmark's weather. It may bring with it mild warmth, or it may rise to storm and bring days of rain. And in both spring and autumn the strength of the west wind rises, bowing all plant life toward the east. England is not as familiar as Denmark with this stiff wind, which may set in for days—even for weeks—on end.



Canal warehouse, Copenhagen

The Danish countryside belongs to the Danish peasant. In the fields that stretch across the rolling hills he toils, followed by white flocks of gulls, tilling the soil behind horse and plough. His fields are striped rectangular carpets, rounding off the primitive ruggedness of the land. Scattered throughout the countryside his houses, built by choice where the hills slope towards the south, brave the tearing wind, and like the cattle in the fields, turning their backs to it. It is a time-honoured custom to build from east to west, in line with the wind, like ships riding at anchor.

The earliest houses were built of peat and clay. The ridge of the straw thatch was bound with seaweed or heather. They were the first step towards the development of great conglomerations of farm buildings, with stalls and barns and store-houses, so well exemplified in the eastern districts of Jutland and on the fertile islands. Especially on the island of Funen is the four-winged half-timbered farm, surrounded by gardens, flowers and hedgerows, a lovely idyll in which the craftsmanship found in the houses of market towns combines with all that is best in the finest manor houses. But there are still many farm buildings which consist of only one long narrow block, where both man and beast live under the same hipped roof; these are typical of the more inclement districts of Jutland, behind the sandy dunes of the west coast, and out on the barren heath.

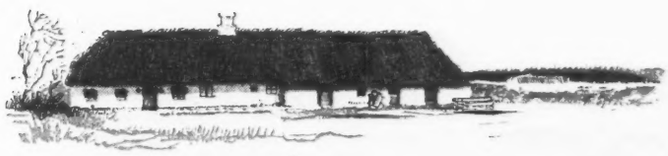
Originally the woods, which covered a considerable part of Denmark, were the source of material for all larger buildings. Later the monk, coming through France from Rome, brought a new era with him. He taught the Dane, who possessed insufficient natural stone, to bake artificial stone from clay. Between the twelfth and thirteenth centuries nearly all country churches and several cathedrals

Village church, Greasted, Zealand

were built of this material. Between thirty and forty churches arose each year, and most of them still stand to-day. Since then brick has become the most commonly used material. It is baked from the inexhaustible supplies of morainic clay, from the upper layers of which come red bricks and thin finely-shaped roof-tiles, while from the deeper layers come blue clay, yellow bricks, tiles and drain-pipes.

By far the greater number of the older churches have, in the course of time, been rebuilt and enlarged with chapels, towers and porches. Nevertheless, they always show the peasant's close understanding of natural building materials. Here are the roughest boulders of the fields and great granite blocks, chiselled smooth and square, side by side with expanses of red brick pointed with lime-mixed mortar. Posts and beams are cleverly constructed in heavy oak. The pure white chalk of the subsoil shines in the walls and in the plaster surface of the arches. In every village the little church, which has often proved a stronghold in times of war and trouble, lies behind the walls of the churchyard. It looks its best on Christmas Eve, when lighted candles shine through tiny window-panes and the air is dotted with dancing snowflakes.

When the railways were built in the middle of the last century, the peaceful Danish countryside received something of a shock. Many small towns became busy junctions, and fishing villages became seaports. The majority, however, remained all but untouched and still continue a quiet existence, discreetly observed in the mirrors fixed at a careful angle outside parlour windows, reflecting up and down each street. White-curtained windows are filled with potted plants. On the front



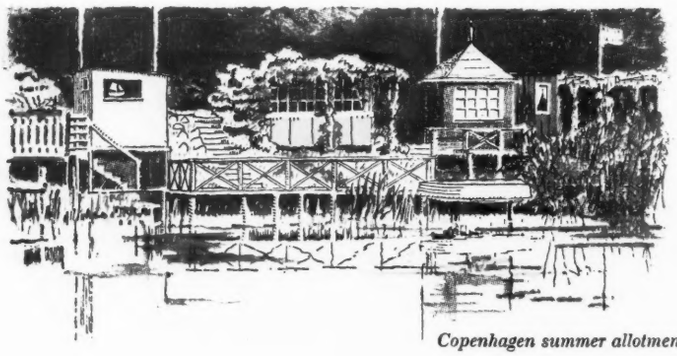
Farmhouse in Western Jutland

doors of the houses trim name-plates, bearing the names of Jensen and Hansen, Nielsen and Andersen, tell who lives within. The smaller alleys have rounded cobbles with deep gutters, and behind the low lines of houses lie peaceful gardens. One town clusters round a royal castle, another round a ruin or a cathedral that stands silhouetted against the sky above the water of the fiord.

Denmark possesses no resources of coal, iron or oil. Consequently, the industrial revolution has not brought with it the hopeless slums and depressed areas that are to be found in other countries. Despite this the capital is very crowded, and contains a quarter of the nation's population. Copenhagen is a desert of stone, fortunately set with many oases. It is at once metropolis and small-town, market and fishing village. The peasant in the town has never forgotten the soil of his forebears though new ideas blow in with every changing wind. In spite of two violent fires and Wellington's bombardment in 1807, the street plan of the old city is still essentially medieval. Crooked and tightly packed quarters within the ancient fortifications are found side by side with the evidence of later, more formal, building. The classical streets are of surprising elegance and provide an appropriate background to barge and ship where they open on to the old harbour and the canals. Strangely enough, however, the town seems to have turned its back on the sea, and looks more towards the countryside and the suburban dwellings lying among parks and woods.

The English park landscape is something the Dane understands, for his own land resembles a great garden. English influence can be seen not only in the parks of castles and the gardens of country mansions, but also in miniature in gardens round the little summer houses built by the citizens of Copenhagen. For what the great city spoilt in its hasty growth has been re-created beyond its borders. Along the shores of the Sound and towards Koge Bay, by lakes and woods, wherever there is any room at all, there are summer cottages and gardens. The spacious living room, which is lacking in the barrack-like buildings of the city, is constructed of timber, and there is extra floor space on the green lawn in front. Shells from the sea decorate the rockery, there are nesting boxes and ponds, all is orderly and well tended; for the Copenhagener's summer home is his castle.

Thousands of gardens with thousands of flagstaffs make up a large part of the Danish landscape. It is a little landscape where every patch of ground has been put to use, fenced and protected behind paling and hedge. In scale it is human—perhaps too human.

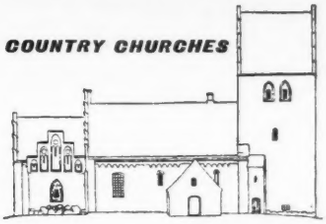


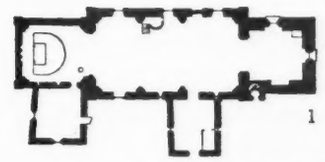
Copenhagen summer allotments

THE DRAWINGS ARE THE WORK OF THE AUTHOR

CHURCHES AND OTHER PUBLIC BUILDINGS IN DENMARK

COUNTRY CHURCHES





1

The four pages that follow provide a brief illustrated survey of Denmark's churches and other public buildings, and include two unrealized projects which are important to an understanding of this aspect of Danish architecture. The historical notes are by Victor Hermansen, Kay Fisker and Preben Hansen.

2

3

1, the church at Tikob, Northern Zealand, built during the thirteenth and fourteenth centuries. 2, the church at Fovlum, Jutland, a romanesque building of granite. 3, the church of Haarlev, Zealand, a romanesque building of limestone; the tower, porch, sacristy and stepped gables are gothic additions in brick. 4, the church of Kindertofte, Zealand, a romanesque brick building, with gothic additions in the same material. 5, interior of the church at Sjorring, Jutland, looking east; the main romanesque features are retained in the flat ceiling, arch, and the niches for side altars, but the furniture is post-reformation, c. 1640. 6, interior of the church at Volby, Jutland; the romanesque chancel was replaced in gothic times by an apse, when the vaulted roof was also installed, with a painted ceiling. The furniture is seventeenth century, and the font romanesque.

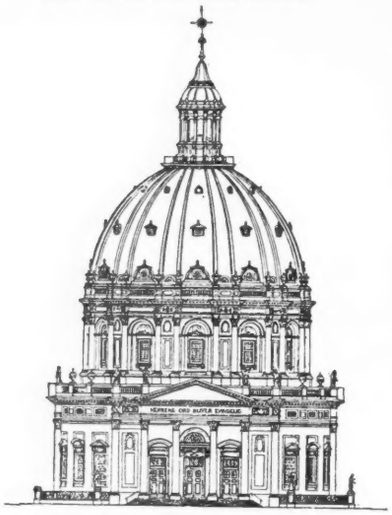
4

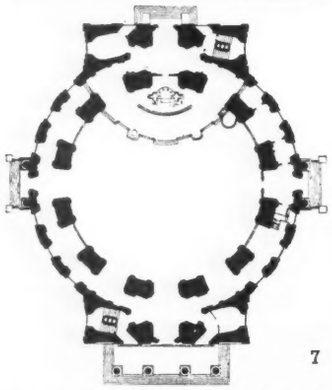
5

6

CHURCHES AND OTHER PUBLIC BUILDINGS IN DENMARK

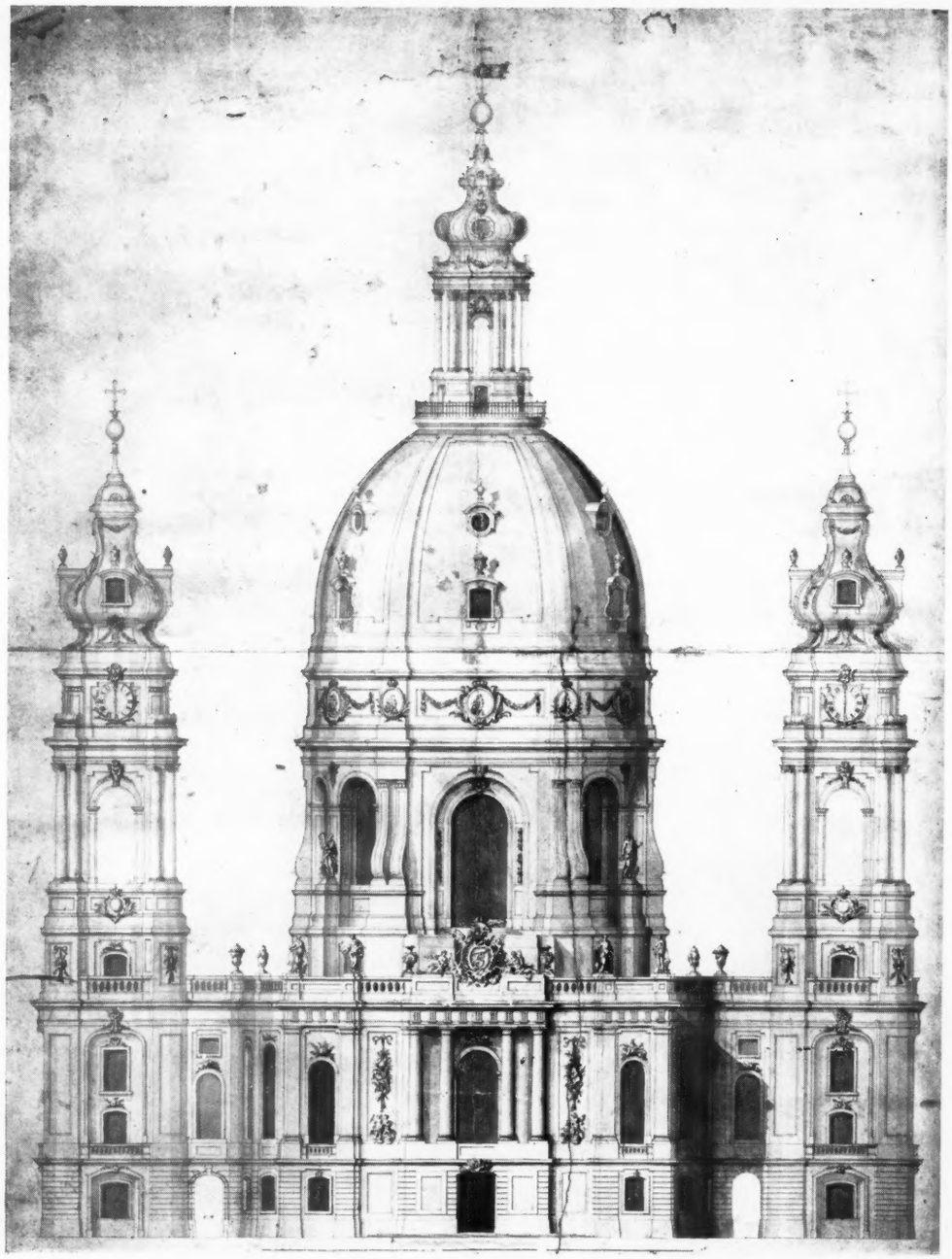
COPENHAGEN CHURCHES





7

7, *the Frederikskirke was built in* 1876-1894 *by F. Meldahl and Albert Jensen. It stands at the end of the primary axis leading from the octagonal* place *before the Amalienborg Palace. The dome, which is the seventh largest masonry vault in Europe, is heavily gilded.* 8, *is the original design for the Frederikskirke by Nikolaj Eigtved made in* 1752. 9, *the church at Christiansborg Palace built by C. F. Hansen in* 1810. *The palace was burnt down in* 1884, *but the church still exists.* 10, *section through the Grundtvigskirke at Bispebjaerg, completed in* 1927, *in which H. Jensen Klint, who had made a lifelong study of the Danish country church, adapted its form to the demands of a cathedral.*



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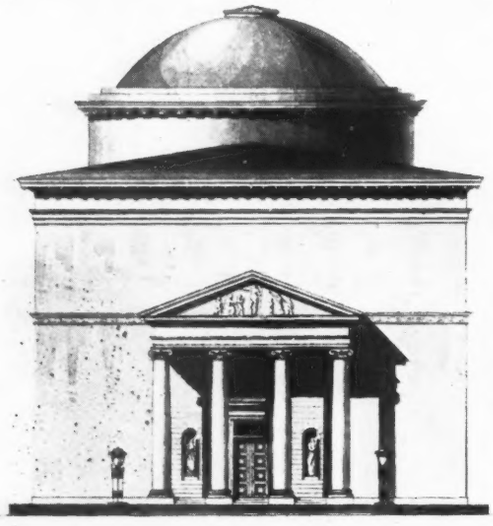

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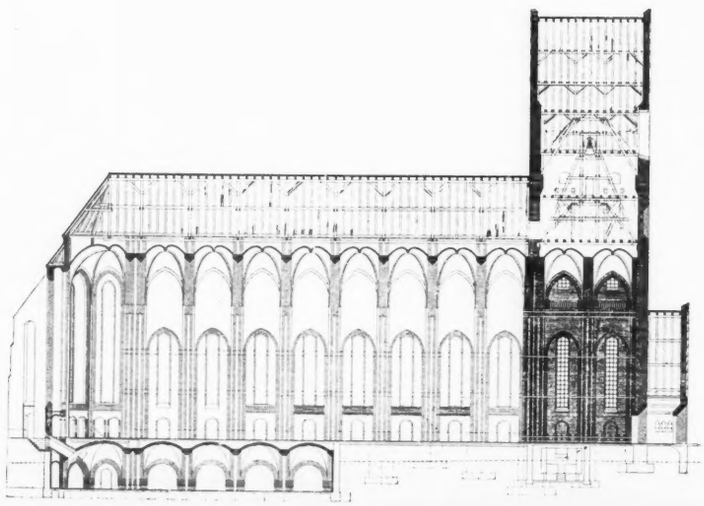

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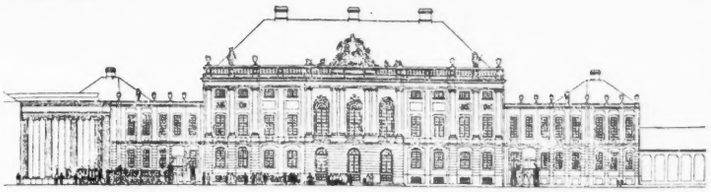
PALACES

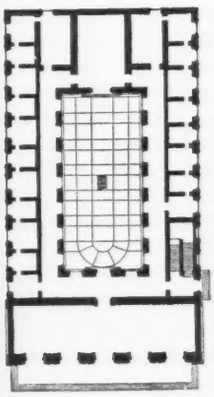


11

11, *one facade of the Amalienborg Palace, which is in effect four palaces with flanking pavilions and interconnecting colonnades, forming the sides of an octagonal* place. *Its creation must be attributed to the painter, Martin Tuscher, who inspired the plan. The culminating point of the scheme is Saly's equestrian statue of Frederik V, which stands in the centre of the* place. 12, *the Fredensborg Palace, on the outskirts of Copenhagen, was built in* 1750-1755 *by Nikolaj Eigtved as a royal summer residence.*

12

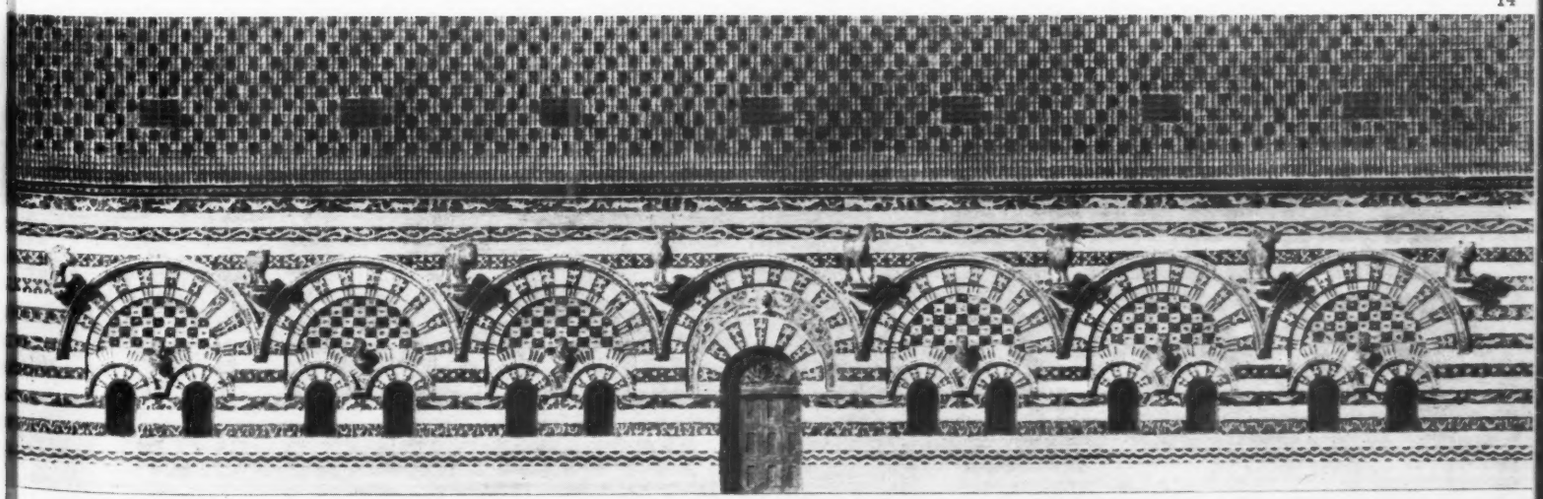
MUSEUMS



13

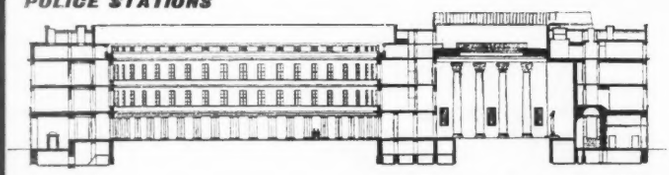
13, *Thorvaldsen's Museum which was built in* 1839-1848, *by M. G. Bindesboll for the collector whose name the building commemorates. It aimed to provide a simple background for the antique sculpture which Thorvaldsen left to the nation at his death.* 14, *a project, also by Bindesboll, for a zoological museum, which was to have been part of the University of Copenhagen. The walls were to be faced with special coloured tiles, and glazed, textured bricks, enriched with sculpture in ceramic. The roof tiles were also to be highly coloured and laid to a chequerboard pattern.*

14



CHURCHES AND OTHER PUBLIC BUILDINGS IN DENMARK

POLICE STATIONS



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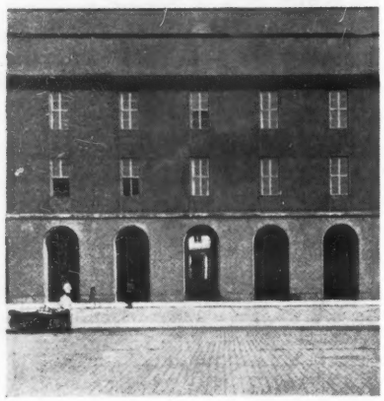
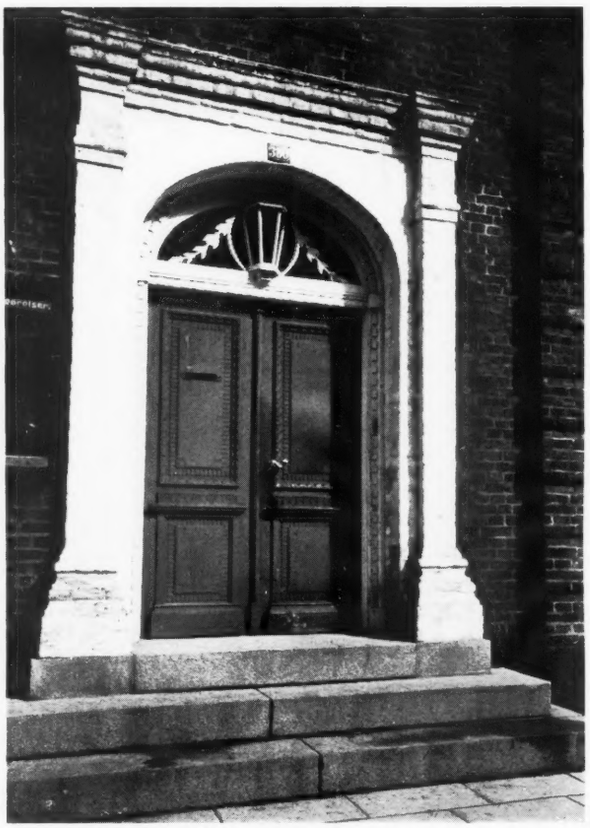


15, *Politigaarden, the Copenhagen police headquarters, built by Hack Kampmann in* 1919-1924. *It is, however, to the younger architects in Kampmann's office at the time, and particularly to Aage Rafn, that the major part of the design is due. It reflects their reaction against the romanticism, associated with Martin Nyrop, whose influence was very evident in the contemporary Grundtvigskirke* (10, *page* 216), *and their allegiance to C. F. Hansen and Carl Petersen, who, in some respects, it would not be inaccurate to call the Danish Palladians. The site of this building is a truncated triangle, within which, as the section shows, two great courts are fitted, a vast circular, and a smaller but no less monumental, square one. The street facades, which were treated as little more than plain walls enclosing the interior magnificence of the courtyards, staircases and halls, are none the less extremely effective in their severity, as the photograph shows.* 16, *the eighteenth century doorway to the police station in the small town of Ribe in South Jutland. The whitewashed portico, like the facade, is of brick, and exhibits that fine workmanship which the Danes have maintained to the present day.*



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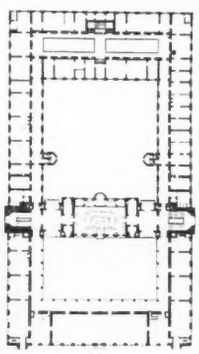
17

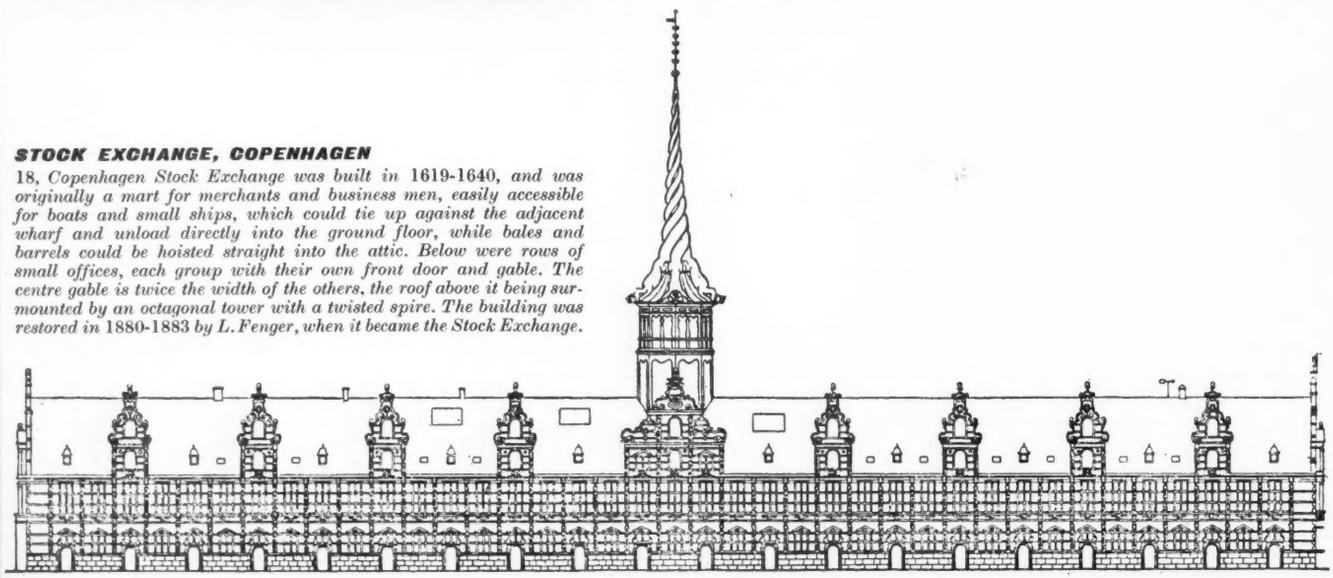
TOWN HALL, COPENHAGEN



17, *Copenhagen Town Hall was built by Martin Nyrop in* 1892-1895. *It is typical of Nyrop's romanticism, and not only had great influence on Danish architects for some time afterwards, but was also extremely popular with the public, whose imagination was captured by its picturesqueness, its canopies, towers and bays, and its lively silhouette. Although a scholarly eclectic, there was nothing professional about Nyrop, who was on good terms with all his craftsmen, and was himself closely acquainted with many building trades. It is said of him in connection with this building that he would reject masonry that had been specially selected, choosing instead stones which had been placed aside to be broken up, because 'they looked so nice and fresh.'*

STOCK EXCHANGE, COPENHAGEN

18, *Copenhagen Stock Exchange was built in* 1619-1640, *and was originally a mart for merchants and business men, easily accessible for boats and small ships, which could tie up against the adjacent wharf and unload directly into the ground floor, while bales and barrels could be hoisted straight into the attic. Below were rows of small offices, each group with their own front door and gable. The centre gable is twice the width of the others, the roof above it being surmounted by an octagonal tower with a twisted spire. The building was restored in* 1880-1883 *by L. Fenger, when it became the Stock Exchange.*



18

KAY FISKER

1

THE HISTORY OF DOMESTIC ARCHITECTURE IN DENMARK

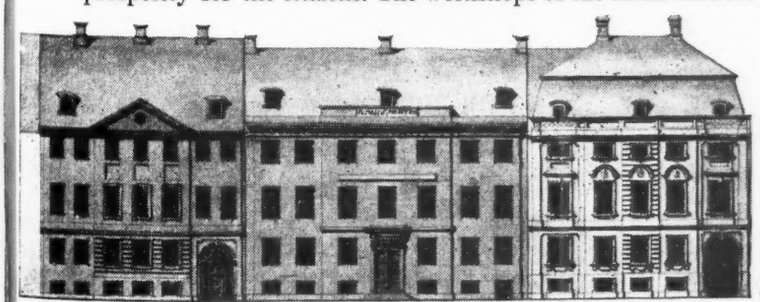
Danish architecture is remarkable first of all for a simplicity which reflects a stable economy and a comfortable, if not luxurious, way of life, and secondly for a tradition of sound building which has, from time to time, assimilated foreign ideas, without ever surrendering to them. In the following article Professor Fisker, a pioneer of the modern Copenhagen flat block, traces the line of this tradition in flat and house design.

part one: flats

UNTIL THE GREAT FIRE of 1728 devastated Copenhagen, the city consisted almost exclusively of brick-and-timber houses. Of nearly two thousand houses burnt to the ground only forty were built entirely of bricks. After the fire brick dominated and a clear and simple type of house was developed, consisting of a series of front rooms separated from the backrooms by a main partition wall. The brick-and-timber houses of before the fire had, as a rule, a single series of rooms without any main partition wall and often with an outer balcony for purposes of communication. The new type was maintained for blocks of flats for more than a hundred years. It was created by Johannes Cornelius Krieger, who designed three model plans for citizens' houses of three stories with gables. These Baroque houses are still numerous in Copenhagen.

About the middle of the eighteenth century these picturesque Classical houses were replaced by more uniform types, which were due to Nikolaj Eigtved, the court architect of King Frederik V, and expressed the strict architectural ideal of absolutism. As a result of regulations and restrictions similar cornice heights and sizes of windows were achieved, and the characteristic gables of the Baroque disappeared (2).

The last part of the eighteenth century was a period of great prosperity for the citizens. The workshops of the small masters were replaced by larger establishments at the same time as the first beginning of a real working-class appeared. This development increased the need for cheap dwellings. Houses inhabited by only one family became more and more rare, and gradually a utilization of the backyards for housing became necessary, as the ramparts prevented an extension of the city's total area. The next great fire in 1795, when nearly one-fourth of the houses of the city were burnt down, gave the development a further push and was the direct cause of a number of new building regulations, such as the fixing of the height of buildings and of minimum thickness of walls. Further, there was a more pronounced tendency to separate rooms for different use, and kitchens were placed in such a way as not to interfere with the communication between the other rooms, just as entrance halls became more common in the somewhat larger flats.



2

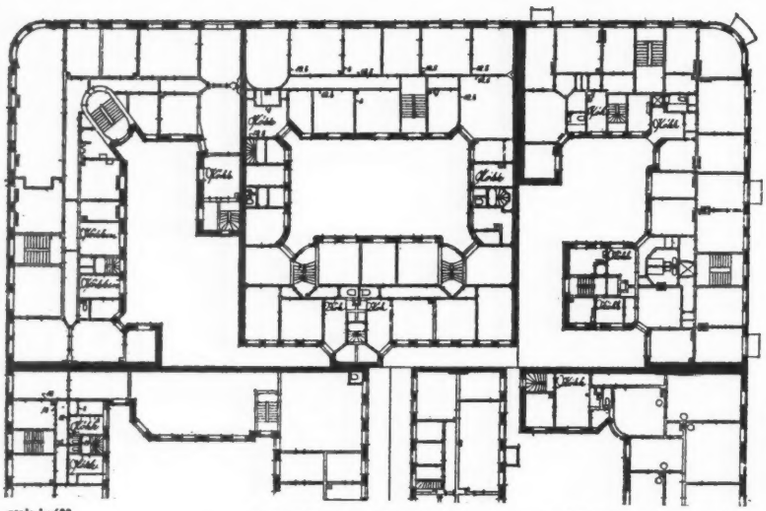
The title piece, 1, *is from a measured drawing of Copenhagen's Nybrogade, a street of flat buildings of the type created by Johannes Cornelius Krieger, after the great fire of* 1728. 2, *a group of flat buildings from the latter half of the eighteenth century, whose design was largely influenced by the court architect of King Frederik V, Nikolaj Eigtved.*

About 1800 the Empire style appeared in the districts ravaged by the fire. The new houses were taller than the old ones. Four stories became the rule. Copenhagen still has many examples of these fine and quiet houses from the time of Frederik VI.

The war with England and the bombardment in 1807 by Nelson destroyed the prosperity of the city. Owing to the national bankruptcy in 1813 money lost its value, and the loss of Norway meant the disappearance of much trade. Thus the capital entered on a protracted period of stagnation. Conditions began to improve only in the thirties. And then, owing to numerous technical improvements and inventions, the main advance was in the sphere of industry. Many new activities were started, and this caused a high influx of rural labour. But Copenhagen still had the same boundaries, that is its fortress ramparts, as at the time of Christian IV, and their effect was bound to be over-population and a far too intense utilization of dwelling space. New stories were built upon old houses, back-houses and side-houses arose in the backyards and gardens in ever-increasing numbers, and lofts and basements were converted into living space. (The district round the Borgergade and Adelgade is an example of how a residential district of distinction has gradually deteriorated.)

3

4



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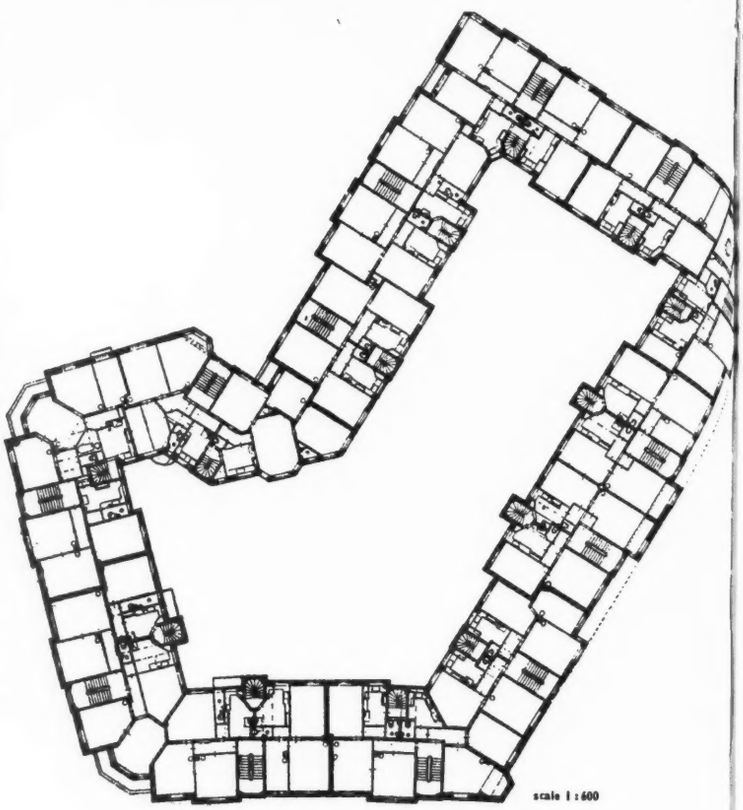

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3, a typical block of flats such as were erected following the passing of the 1889 Building Act, which, for the first time, laid down minimum dimensions for rooms. The chief promoter of this strongly Italianate style was Meldahl. One half of the plan, only, is shown. 4, a block of flats in the style of the early twentieth century romantic revival, with its bays and balconies distributed with due regard to asymmetry. The plan shows more careful attention being paid to light, air and general convenience, although considerations of economy and the regulation two staircases to each entrance do not allow of very generous space standards. 5, on the facing page, a block of flats built in 1920, and designed by Kay Fisker. With its rectangular rooms, uniform doors and windows, it expresses the neo-classical reaction to the preceding romanticism; the chief exponent of the style was Carl Petersen.

At last, in 1852, the year before the great cholera epidemic, which was no doubt due to bad housing conditions, the old boundaries were given up, and on the released areas the building of large blocks with small flats was begun. During these years also the methods used for financing building changed. Earlier houses were, as a rule, built with private capital. But, after the founding, in 1851, of the first company to finance the building of houses, it became possible to raise loans for new blocks of flats. To be a house-owner became a line of business.

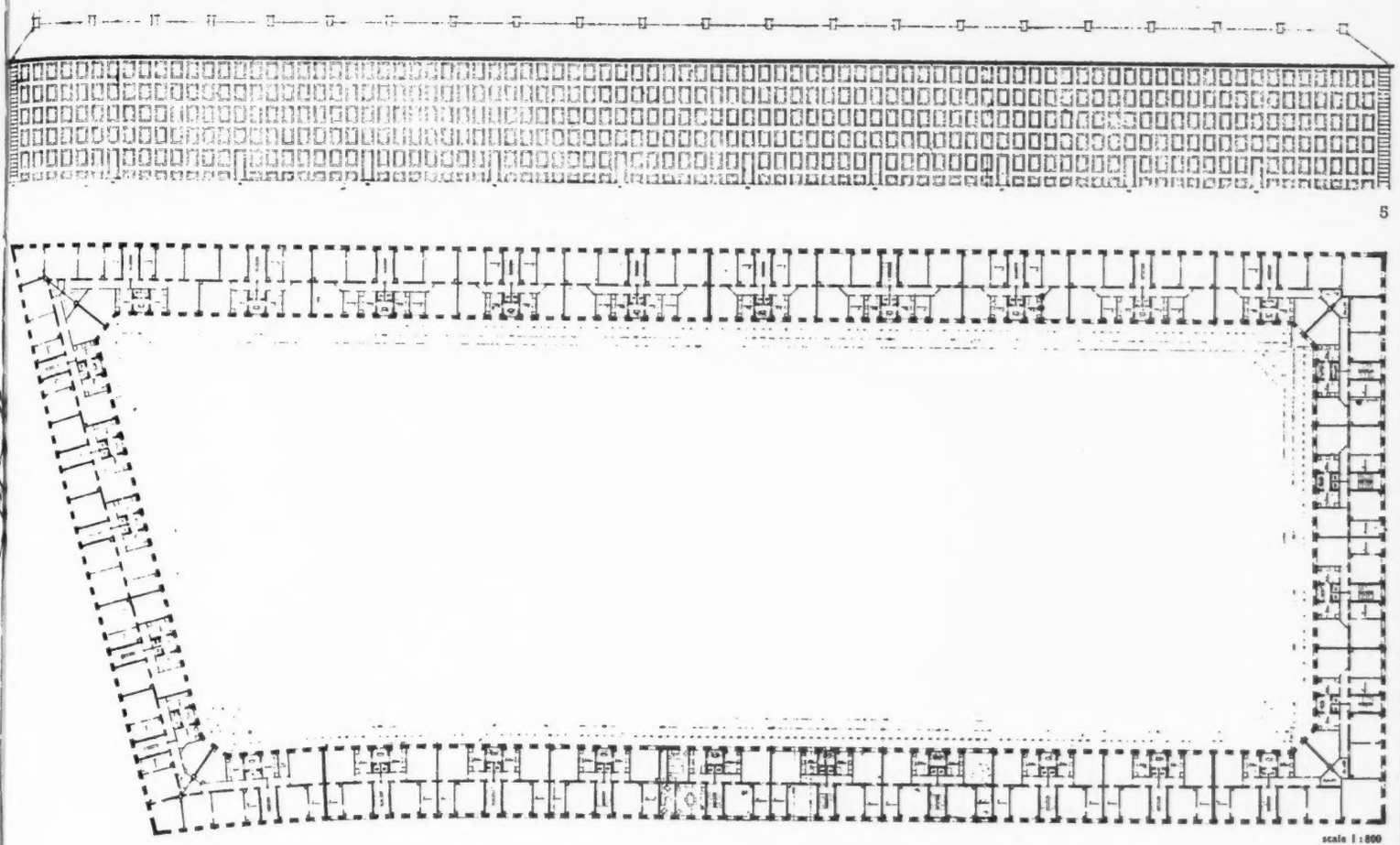
In 1856 the first Building Act of Copenhagen was passed, laying down, for instance, the rule that there must be two staircases to each floor. Later, this Act was followed by others bringing small changes and improvements, such as rules for the insulation of flats. In 1867 Copenhagen was declared an open town, and the last remaining reserved area between the ramparts and the lakes was used for building.

This area, the present Frederiksborggade-Nansensgade district, is a typical example of the dreariness and overcrowding of later nineteenth century domestic architecture. Thousands of bad flats, mostly two-roomed, with small, gloomy rooms and miserable staircases, were built during the seventies and eighties. A contributory cause of the smallness of the flats was the existing exemption from taxation for flats below a certain size.

In 1889 a new Building Act was passed laying down, amongst other things, minimum dimensions for dwelling rooms. At the same time wider streets, placed more closely to each other, allowed less depth for the sites, causing back and side houses to disappear. To secure an effective use of the valuable frontages, kitchens and staircases were transferred to the backs. Mansard roofs were popular for the additional accommodation they made possible within the regulated height, and besides they looked well, it was thought, on top of the monumental Italianate façades. The series of buildings along the Farimagsgade and Frederiksborggade are a typical expression of this continental style of stucco architecture (3). The local promoter was Meldahl.

With the beginning of the new century a few technical improvements came in. Water-closets replaced privies, bathrooms were provided in the more expensive flats, cooking by gas was introduced into the kitchens, and a little later central heating made its appearance.

Externally the architecture of shortly after 1900 expressed a romantic reaction against the prevailing bleakness. Buildings should be 'honest,' it was said; clean, unornamented flat brick-surfaces replaced stucco, and red tiled roofs with tall gables, the shallow slate roofs. Asymmetrical façades became the rule and these were provided with bays and balconies (4). No building was to look like its neighbour. According to the theories of Camillo Sitte, the Austrian, and Schultze-Naumburg, the German, streets should be picturesque, and so straight axes gave way to curves and odd angles, and there were plenty of



5

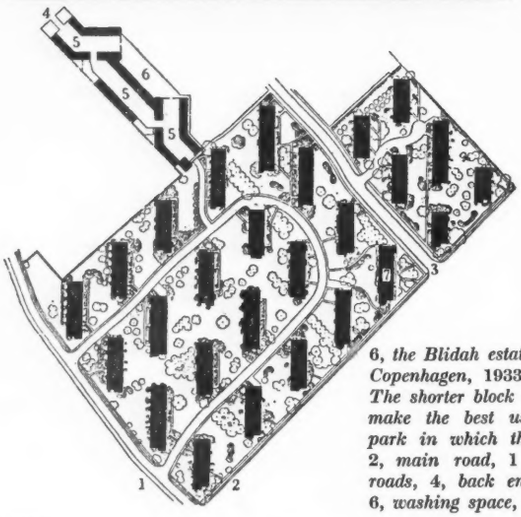
little open spaces and squares with trees and seats and fountains, all influenced by a romantic conception of mediæval towns.

Internal changes were not as great as the external ones. For small, chiefly two-room, flats the most common arrangement was one room at the front and one at the back. Kitchens were grouped symmetrically round the projecting stair-tower, at the back with the kitchen stairs. The hall was unlighted and placed in front of the kitchen. The purpose of all this was to make the best use of the front. But even here, since the Building Acts required two staircases, one had to be on the front, and this, combined with the factor of economy, resulted in inconveniently narrow rooms.

The extent of the building operations during these years was enormous, in fact excessive, so that in 1908 a bank crisis occurred which, for years, totally stopped the building of new flats. This in its turn soon caused a shortage which, with the great influx of aliens during the first world war, developed into a real famine. Rent regulations prevented reasonable profits out of new building enterprises, and so capital ceased to flow into building. Government and municipal authorities had to take steps to get building operations started, and for a number of years public financial support in various forms was given to housing. This meant that building enterprises became larger. Whole blocks were built at one go, frequently with planting in the centre. While building costs rose, the price of land was kept at the same level as before. It therefore became more important to simplify planning and building than to devise methods for squeezing rooms together to utilize every square foot of ground. The type of plan developed is characterized by unbroken outer walls and main partitions at right angles to them, carried through without any breaks. The flats were plain rectangles, and the corridors, which gave access to at least two flats, were placed behind the kitchens. The lavatories were behind the kitchen stairs with indirect light from them. Sizes of windows and doors were standardized, and the façades favoured a neo-classicism evolved in reaction against the exaggerated individualism of Martin Nyrop, the architect of the Town Hall in Copenhagen. The advantage of this neo-classicism was that it replaced the often confused and disorderly street-picture of the previous period by unified façades framing the streets and the large green areas inside the blocks (5).

The plans of these buildings were still based on the two-stair principle, but the need for the kitchen stairs, the chief justification of which was the carrying up of fuel for the stoves and the carrying down of refuse, disappeared to some extent with the introduction of central heating and refuse shoots. At the end of the twenties, therefore, five or six storied blocks were permitted with only one staircase, provided they had fire exits in the form of balconies. This system was established by law in the new Building Act of Copenhagen, which was passed in

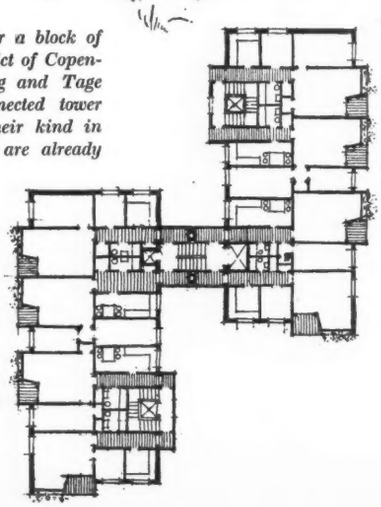
6



6, the Blidah estate at Hellerup, near Copenhagen, 1933, by Ivar Bentsen. The shorter block is here staggered to make the best use of the existing park in which the flats were built. 2, main road, 1 and 3, secondary roads, 4, back entrance, 5, garages, 6, washing space, 7, flats.

Flats

7

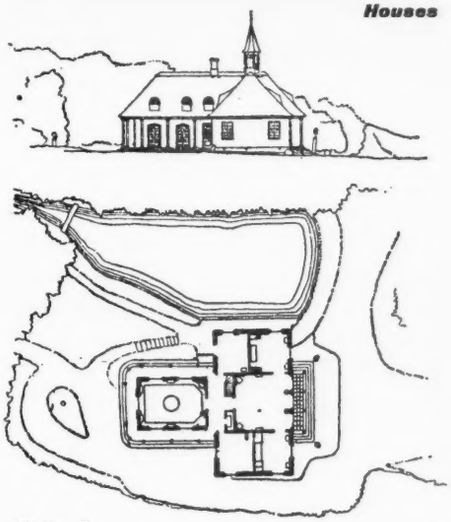


7, the winning design for a block of flats in the Bellahoj district of Copenhagen by Mogens Irming and Tage Nielsen. These interconnected tower blocks are the first of their kind in Denmark, although they are already popular in Sweden.

1939, and revolutionized the planning of flats. Possibilities now arose for a freer elaboration of plans. Balconies, originally introduced only for reasons of fire security, became valuable places for open-air life and were often placed where not required by law. At the same time they helped to accentuate façades in the rhythm of the new architectural style, façades which, like those of the Nyrop period, were to give honest expression to the plan behind them. But while Nyrop and his school paid minute attention to the æsthetic effects of this approach, the 'new architecture,' in many cases influenced by the Germany of the Weimar Republic and especially by Gropius's Bauhaus, abandoned the conscious considerations of æsthetics and often allowed the façade to take any form the plan might demand. In a number of cases, the result was not happy, but in a few important works it gave expression to the real æsthetic contribution of functionalism.

In planning, efforts were made during the thirties to get away from the obsolete two-roomed flat, even though it was still popular with the public. Flats of one large living-room with a dining-recess and several small rooms began to appear, and site planning showed considerable improvement. Instead of the usual blocks with fine façades and less fine backs, and with yards littered with bicycle-sheds, dustbins, and fences, flats were now set in large gardens, made possible through the replacement of dustbins by refuse chutes, and individual coal cellars by central heating. But nevertheless the demand still existed for all living-rooms to look upon the street, with kitchens and bedrooms at the back. It was not until 1930 that buildings began to go up with living-rooms and main entrances planned according to the dictates of sun and air. The next development, that of building in parallel blocks, independent of the existing street plan, dominated in the thirties. The disadvantage of this system, apart from a certain visual monotony, was that it took up too much space and gave insufficient shelter against the wind. The tendency in recent years has been towards shorter blocks, as, for instance, those on the Blidah estate at Hellerup near Copenhagen (6), and those at Bispebjerg and at Godthaabsvejen.

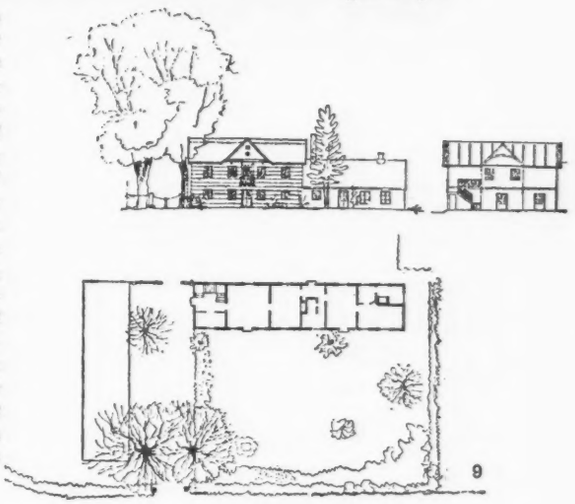
A new plan, not previously adopted in Denmark, although now common in Sweden, is the so-called 'point-house,' of 12 or 14 stories. It is likely that these will become common in future, and already, in a competition held for the replanning of the Bellahoj district, this solution has been accepted (7).



Liselund 8

Spurveskjul

8, *Liselund, built by Kirkerup in* 1792 *for Antoine Calmette, governor of the island of Moen, to whom the design is largely due. The house is small, since it was planned solely as a summer house. In the landscaped park are guest houses, and numerous resting places with monuments and inscriptions. At the back of the house is the dining room, surrounded on three sides by a covered terrace. The roof is of thatch, crowned by a small, open spire. The photograph shows one of the bedrooms.* 9, *Spurveskjul was built in* 1805 *by N. A. Abildgaard, the most important Danish painter of the Classical Revival, for his own occupation. The main part of the house is two storeys high, with a thatched roof. It was restored in* 1925-6 *by Viggo Steen Moller.*



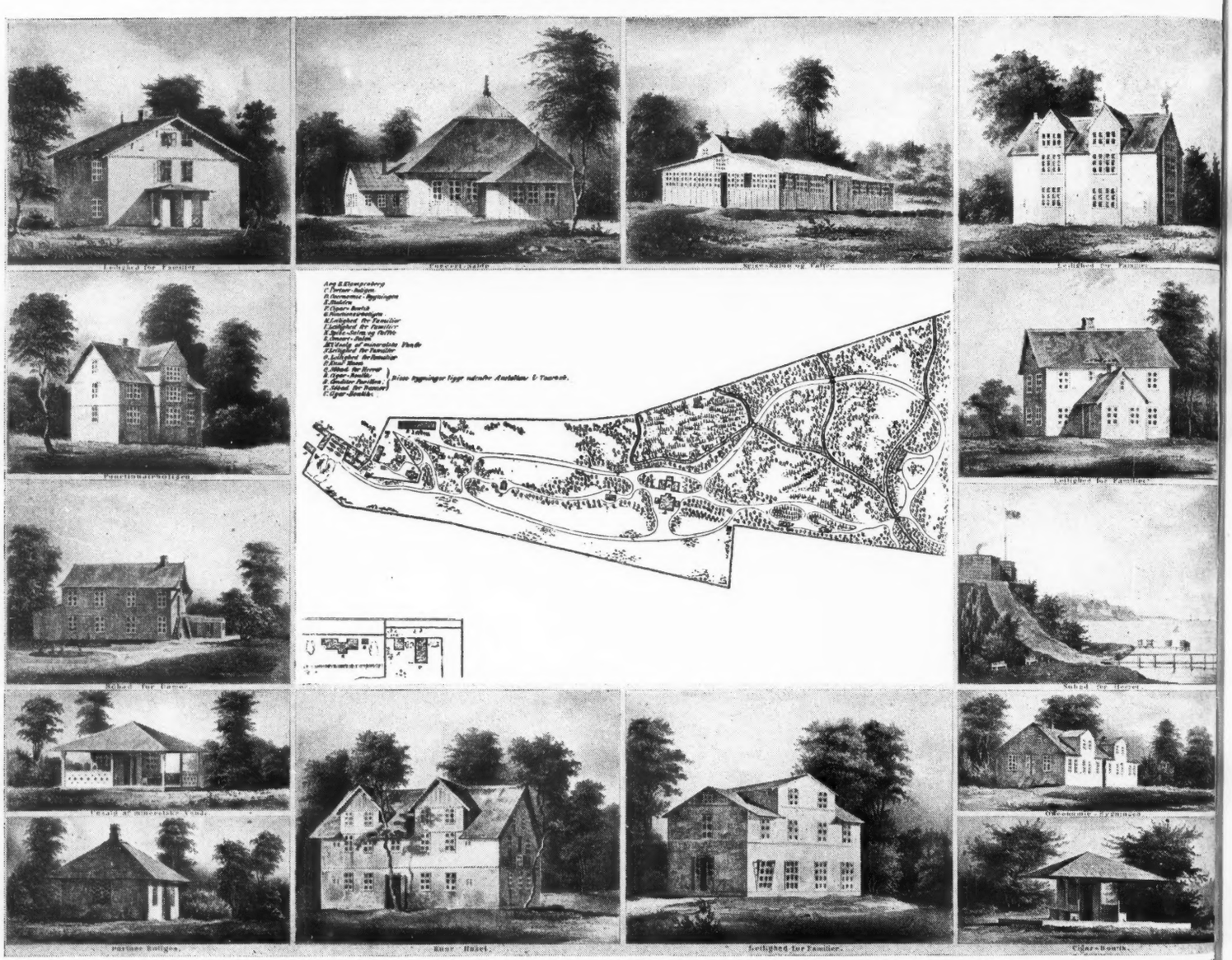
9

part two: houses

The larger villa in Denmark dates further back than the small one-family house, which is an innovation of the twentieth century. The pedigree of the larger type leads to the stately country houses of previous centuries, built by rich men as summer residences (8). The few of these which are left are to be found especially in North Zealand, round Frederiksdal and along Strandvejen. Among the most characteristic may be mentioned Christiansmunde, Hellerupgaard, and Oregaard in Hellerup, and Christianslyst and Sophienholm on the Bagsvaard Lake. Another very fine small country house, still preserved, is Spurveskjul at Frederiksdal, a graceful two-storied house with a thatched roof, built by N. A. Abildgaard, the most important Danish painter of the Classical Revival, and inhabited by himself and, later, by Christian Winther the poet (9).

Like the building of flats, the great moment for small villas came after the first world war. Through the Government Building Fund large sums were made available for them, with the result that a vast number of one-family houses sprang up on cheap land on the outskirts of the towns. Most of them were speculative enterprises, sited without any regard to the principles of town planning.

If one takes a walk through these chaotic suburbs of Copenhagen it will be noticed that with very few exceptions the villas, from the point of view of style, fall into three groups. The first is regular in plan, usually symmetrical, and with small casement windows. The roof is high-pitched and as a rule faced with red tiles. The walls are red brick. There are no overhanging eaves, only a narrow cornice and gables or dormers. About twenty years ago this type was popular owing to the intensive propaganda of architects and idealistically-minded institutions, such as the Design Assistance Board of the Union of Academic Architects and the National Union for the Building of Better Houses, which supplied free, or for very little, architectural assistance to clients. However, since the middle of the twenties this style has fallen into abeyance. It is, however, still to be found in a revised form with yellow brick walls, teak or steel windows painted white, and a flatter roof, in some cases covered with slates instead of tiles. In this



10, *cottages, rest houses and bathing huts, in the spa at Klampenborg on the sea, built by G. M. Bindesboll in* 1844. *The influence of contemporary English architects is very clear in the houses, and of English landscape theory in the layout of the park, a plan of which is given in the centre.*

form it is still produced by some of our best architects, with the same precision of construction and design that it possessed from the beginning.

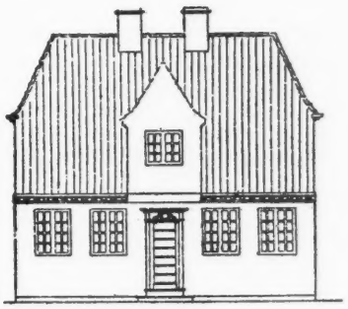
The second type is characterized by a large overhanging barge-boarded roof and with wooden windows, painted white or brown. The walls are of yellow or streaked brick. Sometimes the living-room has a flower-window suspended on the outside of the wall as a kind of bay. As a rule the roof is tiled or, in more modest houses, covered with roofing felt. Often the houses are L-shaped or in some other way irregular in plan.

The third type is cubic in form, sometimes of concrete, or, if of brick, often plastered to look like concrete. The windows are nearly always steel, there is no cornice and no gutter, and the invisible, flat roof is drained by hidden downpipes. To make amends for a certain lack of character, these houses are often painted in various colours, as a rule unmixed. The plans are irregular and released from all formalistic ties. This type was especially prominent in the thirties.

A closer study of the origin of these three types, and their connection with different periods in the history of Danish architecture, will show that the first type, the firm and regular one with high roof, can be traced back to the Baroque. Since its character is so inconspicuous it was able, without conflicting with the styles that followed, to survive all through the Empire and the whole nineteenth century.

Shortly after 1900, when it was realized that the confusion of styles had almost altogether destroyed the art of building in Denmark, an attempt was made to revive this architectural tradition; as a result a number of good unobtrusive houses were built, especially in the countryside. This was chiefly due to the fact that this style was founded on such simple rules that even country builders could grasp them, whereas the individualistic architecture which both preceded and succeeded this phase could only prosper in the hands of the most imaginative architects. This is largely why the style has survived to the present day (11).

The Copenhagen suburban home



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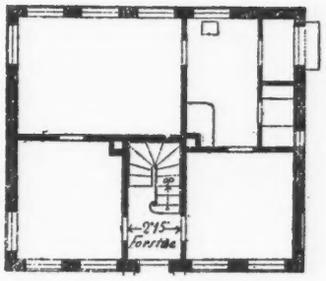

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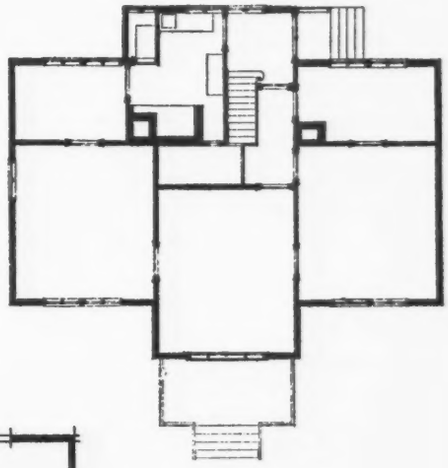
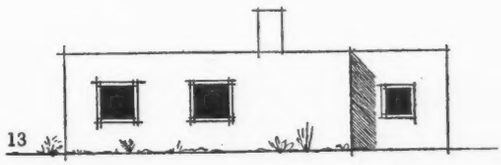


The three houses shown here illustrate the main types to be found in Copenhagen suburbs. 11 *is the type which shows classical influence, it is usually symmetrical in plan and elevation, and is still built in a revised form in yellow brick with a shallower roof covered with slates instead of tiles. This example is dated* 1920. 12 *is more romantic, usually characterized by an overhanging, barge-boarded roof, and wooden windows painted white or brown. The plan is often L-shaped or otherwise irregular. This example is one of the cottages by Bindesboll from Klampenborg, illustrated on the facing page, and was built in* 1844. 13 *is the functionalist type, with the main influence stemming from Germany and the Mediterannean. This type is usually found now in a more domesticated version. The example here, a design of the thirties, is by Chr. Erik Holst.*



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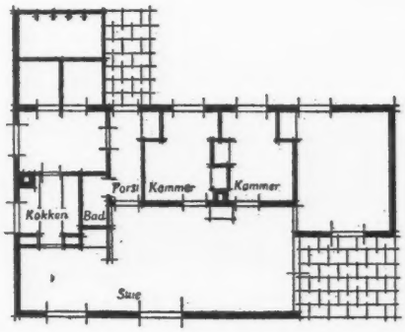


The second type, characterized by the overhanging roof and a carpenter-like character all round, is a descendant of the English Bindesboll-Herholdt tradition of the middle of the last century, continued afterwards by Nyrop and Bentsen (12). In his later years, after having built the Thorvaldsen Museum and other works in period styles, G. M. Bindesboll, an architect with the finest and most exuberant understanding of antique architecture, began to build houses of extreme simplicity, characterized in everything by technical clearness and functional suitability for their purpose. These houses show an understanding of the fundamentals of building which must have been absolutely alien to his contemporaries. Their influence on the future was great and they set their mark everywhere on these suburban districts which arose in the second half of the century. It was the great architects of the time, such as Chr. Hansen, Stilling and Herholdt, who carried on the Bindesboll ideals. In their big public buildings they employed the historic styles demanded by their time. But in small houses the stamp of a specific style was thought to be of less importance, and in this field they contributed towards a continuation of a simple, and in many ways typically Danish, style which is still preserved in spite of the attempts to supersede it made by Meldahl's internationalism and the currents of fashion following it.

Herholdt's style dominates the earliest suburbs near Copenhagen, built in the seventies. He was himself one of the pupils of Bindesboll, and among the latter's villas were the cottages at Klampenborg watering-place, where English influence is very distinctly traceable (10).

The influence of England, particularly through the teachings of Ruskin and William Morris, has been strong on the domestic architecture of Scandinavia. The Danish apostles of these ideals of architecture insisted first on houses planned individually for those who were to live in them and secondly on a respect for good handicraft. The English principle of a large central hall with the staircase in it was frequently used by Herholdt, the

famous painter. A typical example of his work is the villa designed for P. C. Skovgaard, in Rosenvanget. This villa still exists, and with its bays, balconies and verandahs creating a close connection with the garden, it has continued to be the model for many others, apart from a short eclipse due to Meldahl's influence. Meldahl was the most important Danish historicist. For half a century he influenced the Royal Academy, and it was due to him that Bindesboll and Herholdt's efforts for a more rational architecture were not immediately successful. Not until after Martin Nyrop's buildings for the Great Scandinavian Exhibition in 1888 was the road paved for a return to Herholdt's views, based, as they were, on sound craft free from artificiality and affectation, on simple proportions, and on an intimate relationship between house and landscape.

The third of the three types of houses mentioned above, the cubist-functionalist house, has come to us through the international modern movement, which gained much ground in Denmark in the middle twenties (13). It was clearly influenced by cubism in painting and by the white, flat-roofed houses of Mediterranean countries. But while most people judged this type on the strength of its outward appearance, the idea behind it was sound, and the functionalist theory for which it stood has entailed a decisive change in the whole conception of the house. A close analysis of demands now became the presupposition of planning. Suitability for its purpose, economy and an understanding of its social functions determined the form of a house. Great sacrifices were made for the sake of this new point of view. Even architects with strong æsthetic sensibilities often disregarded considerations of mass and proportion, believing that the satisfaction of functional needs would produce good architecture as a matter of course. Almost everything which could not be expressed in terms of figures, distances between rooms, easy cleaning, durability and cost was denied existence. However, the real advantages of this approach, at least for a time, are not to be questioned here, and it would be a great pity if what was gained should be lost again. On the other hand one need not be an expert in the history of architecture to see that the demands of the functionalist are in fact fulfilled in most good architecture. Indeed, the distinguishing mark of functionalism is not that it is functionally more efficient than other kinds of architecture, but that the theory is reflected so demonstratively in certain forms. In the true meaning of the word Bindesboll was often more functional than many of the later functionalists. However, although the idea of the interdependence of form, construction and function is familiar, the outward forms which functionalism gave it are alien to Denmark. Danish scepticism and reserve may be negative in some respects, but they have always prevented the country from surrendering uncritically to fashions and currents. The international Beaux-Arts style influenced us but little and Art Nouveau also never gained a foothold in Denmark at all. Thus we have extracted from the functionalist æsthetic only as much as could be transformed to our requirements. Houses have the protective roofs which are demanded by our climate, and walls and windows are made of materials which we produce ourselves.

It can be said without exaggeration that Danish architecture is advancing, but along a line not entirely independent of tradition, adapted to the Danish environment and character, quiet and modest in expression, influenced by currents from the outer world, but looking first and foremost to its Danish inheritance.

Valloe Castle

The main street in the country town of Faaborg, South Funen, with the 15th century steeple of the church of St. Nikolai in the background

G. Anthony Atkinson

TECHNIQUE, TRAINING AND PRACTICE

in Danish architecture

THE Danes are proud of their national flag. White cross on red ground, it flies from the flagstaff of city hall and suburban allotment garden alike, as characteristic a feature of the Danish scene as the simple country church with its walls of white-washed brick and roof of red pantiles. Denmark's architecture is inspired by this same simplicity and clarity.

Denmark is founded on chalk and clay; and brick, tile, lime and cement are the raw materials of Danish architecture. Its great urban buildings are faced with marble and granite from Norway and Sweden, with glass and faience, even with copper, for walls of brick are not seemly in a busy city street. The spires and roofs of its public buildings are of copper greened with age. But it is with walls of brick and roofs of clay pantiles that the Danes mostly build. Traditionally these bricks and tiles are red, but today around the brickworks the upper layers of clay which gave this colour are becoming exhausted. Until new fields are opened up, what remains is being reserved for tile making. For bricks the lower levels are being exploited. These give a brick which is yellow in colour like the London stock, but harder, and having a slightly mechanical shine. Danish architects are past masters of the art of building with red brick and pantile —rather wide mortar joints, carefully detailed plinth, eaves and gables, and white paintwork, as simple and conventional as the eighteenth century terrace house. They are less at ease when they use the yellow brick. Experiments, not always too successful, have been made with the treatment of joints and the colour of paintwork. Roofs have been made with red or yellow pantiles, coloured felts, asbestos cement sheets and slates. Perhaps tradition has been followed too closely. Through bolder experiments a new tradition may be established.

These traditional building materials, and especially the long roofs of pantiles which themselves echo the simple thatched roofs of country farmhouses, have influenced Danish plan forms up to the present time. Hips and valleys cannot be built as easily with pantiles as with plain tiles or slates. To be in scale a pantile roof should be bold and simple in its lines. With closed stoves and central heating there are few chimney stacks and these are always placed at the ridge. Danish buildings, therefore, are based on simple combinations of long rectangles which are rarely broken by projections on plan or by changes in level.

The Danes are farmers, and farmers are a conservative people, shrewd and practical but suspicious of change and of new ideas. But they are also sailors, and sailors the world over love to collect the novel and bizarre from distant lands. The history of Danish architecture is a history of foreign influences entering at the busy seaport, and especially at Copenhagen, reacting on native traditions which are bedded deep down in the provincial countryside.

During the Middle Ages it was from Germany and France that the architecture of the romanesque and gothic was brought with Christianity to Denmark. In the early years of the renaissance there came from the Netherlands not only ideas but architects as well. Later, during the eighteenth century, the emergent Danish architect turned towards France and Italy. The coming of steamship and railway was to open up not only the seaport but also many a quiet market town to the eclecticism of Victorian art. Steam, however, did not bring the industrial revolution to Denmark, and traditional building was able, in country districts, to survive the tumult of the century. This survival owes much to the tenacity and conservatism of her farmers, but it also owes something to the work of such architects as M. G. Bindesboll (c. 1850) and H. B. Storck (c. 1880) and, as the century drew to a close, to the revival of domestic architecture in England. Survival was merged into revival in a new romanticism of which the greatest monument is Copenhagen Town Hall (1892-1905), designed by Martin Nyrop, and the last is the Grundtvig church begun by P. V. Jensen Klint in 1918 but not completed until 1940.

In the early twenties the younger architects turned against the romantic movement and against their teachers at the Academy. But their revolt took the form of a revival of classical architecture, especially that of Palladio and sixteenth century Italy, and was little better than that which it condemned. The early work of Kay Fisker and his contemporaries shows, however, that this revival was an advance and not a retreat. Accepting for a time the classical idiom they soon discarded its trappings and began to design in the spirit of their own times. As a result there is no break between the older architects and the present generation of

young Danish architects.

The 1930 Stockholm exhibition had a profound effect on Scandinavian architecture. The people, as well as their architects, were introduced for the first time on a large scale to what has been called for want of a better name 'functionalism.' The idioms of the past were forgotten and with them, sometimes without good cause, traditional materials and ways of building. But in Denmark brick could not for long be displaced by concrete or stucco. Though less photogenic when new, the traditional material weathered far better in the changeable Danish climate. The national conservatism of which I have already spoken did not permit the erection of many 'abstract' buildings in which structure alone is dramatized. The Danes ask of architects another quality in their buildings, a quality they call 'hygge'—an air of comfort, of being at ease.

The architecture which has resulted has been called 'narrative functionalism,' a convenient though dangerous description. It admits that a building has a psychological function as well as a physical function to perform. The simplicity and efficiency of the machine need not be lost, but a human quality must be added. This is made possible by the use of materials which age gracefully and by bringing nature right up to and into the building. It is helped by the high standard of Danish interior design, its use of colour, of well-designed fittings and furniture, ceramics, textiles and wallpapers. It also owes something to the discipline of roof form already noted which has prevented a building being broken into many more or less unrelated parts. This last is shown very clearly in the earlier buildings of Aarhus University and the nearby hospital, designed by Kay Fisker and C. F. Møller before 1939 (frontispiece page 210, and pages 229 and 230). A similar discipline of plan is evident in Arne Jacobsen's town halls at Søllerød, near Copenhagen, 1941, and at Aarhus, 1942 (page 229). In Vilhelm Lauritzen's Broadcasting House, 1941 (below), the disciplined plan of the administration building is contrasted with the broken plan and free massing of the concert hall. As a result the concert hall is joined to the administration building by a series of stepped back and loosely related planes which unfortunately occur at the most important corner of the site and detract from the otherwise excellent quality of Lauritzen's master work. It shows how difficult it is to handle satisfactorily the acoustically necessary wedge-shaped concert hall, and might serve as an object lesson to others faced with a similar problem.

That Danish architecture remains sane, sound and simple is largely due to the method of training of her architects and to the way her building work is carried out. There are two ways of entering the Academy school. The more usual is to take the full five-year course after a general secondary school education, the other is by way of a junior technical school and apprenticeship to a trade. In the first, the student must spend six months on a building site and must be registered through a trade union. In the second, he must have served his time and hold a journeyman's certificate of competency. He then enters the Academy school at the third year. Such a system ensures that all have at least some practical experience of building, and a few a fairly wide experience. A further feature of Danish architectural education is that the leading practitioners help in the training of the younger generation and thus, while gaining the confidence of youth, refresh themselves by the stimulus of such a contact.

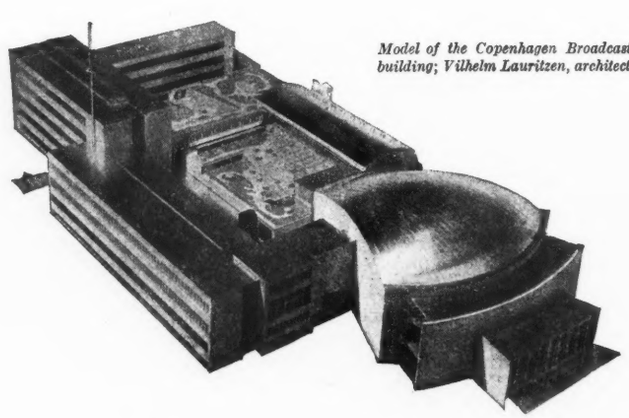
The most common form of architectural organization is the private firm with one or two partners and a small number of assistants, qualified architects or students, rarely architectural draughtsmen. A similar form of organization is usual for the building engineer, who is responsible not only for structural design but also for heating, water supply, drainage and sanitation, electricity and any special services. Engineer and architect collaborate very closely but they nearly always practise separately. Both are appointed by the client, their fees varying with the proportion of engineering to architectural work involved. A third consultant, the landscape architect, is often employed from the start of a scheme. There are no quantity surveyors. There are few general contractors, and work is usually priced and contracted for by trades. This means that the architect dominates the building work. To facilitate this there is, on any reasonably sized site, a resident architect, the 'kunduktor,' who acts as co-ordinator and clerk of works. That such an organization could come into being and continue to exist is due both to the size of the country and to the relative simplicity of its economy and to the prestige, almost snob, value which the 'architect designed' product enjoys with the Danish people. It is also due to the fact that public housing is generally carried out by co-operatives which, though belonging to a central federation, possess some local autonomy and are able to appoint their own architects.

Thus through training and practice the Danish architect is master of the whole process of building. This explains why the detailed design of his buildings is of such a high quality, materials are used correctly and with complete confidence, and it is rare to see something which the architect obviously has overlooked and left to the builder to bodge as best he can. But it should not be forgotten that this is a competency within a traditional system of building with brick, wood and concrete.

Denmark, like this and many another country, has her post-war building problems —rising costs, shortages of materials and labour, and a large unsatisfied demand for all kinds of buildings, and especially for houses. During the German occupation an official committee discussed some of these problems. It recommended among other things that a national building research institution should be established. This institution is now just over a year old. Vilhelm Lauritzen is chairman of the governing board and the institution is directed by three architects and two engineers. Very wisely one of its first tasks is to study traditional building, to find out its why and its wherefore. Denmark's economy does not favour a fully industrialized building industry. Metals and timber must be imported. Chalk and clay are indigenous. It would therefore seem that progress will be rather through improving and rationalizing traditional methods. The structural use of brick and timber could be put on a more scientific basis. They could both be more economically used than they are at present. Many building elements could be standardized and their manufacture organized in the factory. Site organization could be improved, especially by the use of more power tools and hoists and better scaffolding. Here the Danes might learn from this country; indeed it would be valuable if they did, as they could give an architectural character to these methods and processes which we have rarely been able to effect as yet.

There is no space here to discuss Danish town planning. The Danes can and are learning much at least from the theory of English planning. Unfortunately during the last thirty years great opportunities have been lost in the development of greater Copenhagen. The defects and lack of planning are perhaps fortunately masked by the high average standard of the architecture and more recently of landscape gardening.

We can learn much from the Danes, especially how important it is to master the fundamentals of building technique and to understand the use of materials, constructionally and architecturally. We must learn to experiment with colour and texture and yet avoid trying to be novel or sensational. We, too, must study the traditions of building, remembering we have an industrial tradition to study as well. Our task is a more difficult one but it is no less exciting for that.



Model of the Copenhagen Broadcasting building; Vilhelm Lauritzen, architect

RECENT BUILDING IN DENMARK

Fireworks are not a feature of modern, or, for that matter, of traditional Danish architecture. Daring experiments in construction, stylistic landmarks, the fantastic and bizarre are not in the nature of the national temperament or economy. What Danish architecture is remarkable for is simplicity and restraint, and, as the following pages show, an almost unique understanding of pattern, texture, colour and plant forms which, linked to a living tradition of craftsmanship, seldom allows these qualities to degenerate into pedestrianism.

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1 Aarhus University. *Architects: C. F. Moller, Kay Fisker, Povl Stegmann.*
2 School at Copenhagen. *Architects: Poul Holsoe, F. C. Lund.*
3 Sports Centre at Gladsaxe. *Architect: Vilhelm Lauritzen.*
4 Covered Stadium at Copenhagen. *Architect: Hans Hansen.*
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6 Public Library at Nyborg. *Architects: Flemming Lassen, Erik Moller.*
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8 Factory at Aalborg. *Architect: Preben Hansen.*
9 George's Bar, Copenhagen. *Designer: Orla Boyer.*
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16 House at Hellerup. *Architect: Erik Moller.*
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18 Houses at Vangede. *Architect: Arne Jacobsen.*
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21 Flats at Ordrup. *Architect: Mogens Lassen.*
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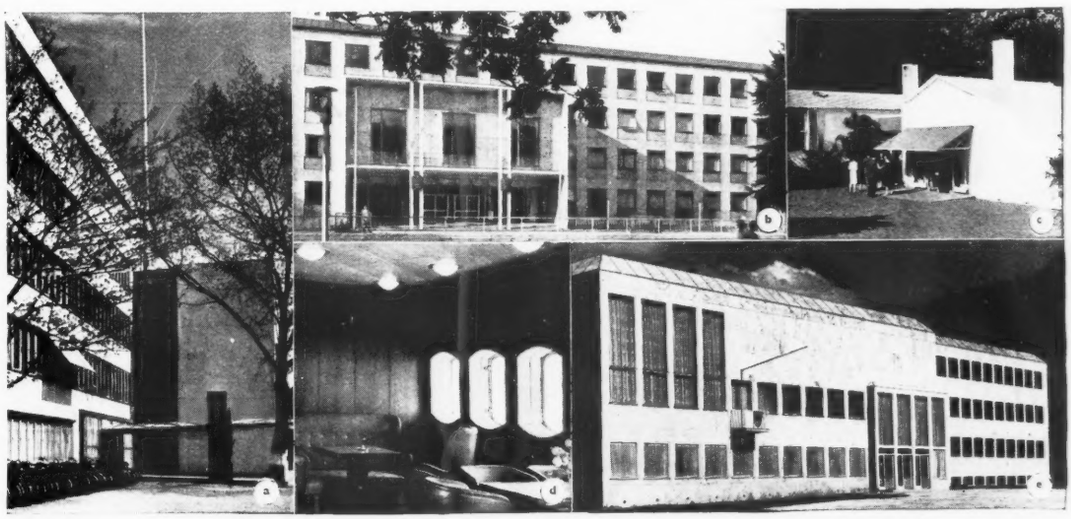
24 Flats at Copenhagen. *Architects: C. F. Moller, Kay Fisker.*
25 Flats at Copenhagen. *Architects: P Baumann, K Hansen*



ALREADY PUBLISHED

A list is given below, for purpose of reference, of recent Danish work which has already been published in THE ARCHITECTURAL REVIEW. The letters in bold type refer to the illustrations on the left.

Broadcasting Building, Copenhagen. Vilhelm Lauritzen: Architect. July 1946. **a.**

Town Hall, Aarhus. Erik Moller and Arne Jacobsen: Architects. August 1946. **b.**

House at Ordrup, Copenhagen. Finn Juhl: Architect. December 1946. **c.**

House at Hellerup. Tyge Hvass: Architect. December 1946.

House at Gentofte. Karen-Margrethe and Mogens Black-Petersen: Architects. December 1946.

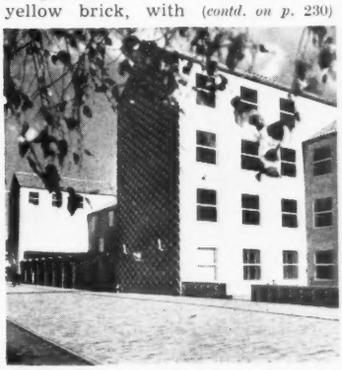
Motorship 'Kronprins Frederik.' Kay Fisker: Architect. February 1947. **d.**

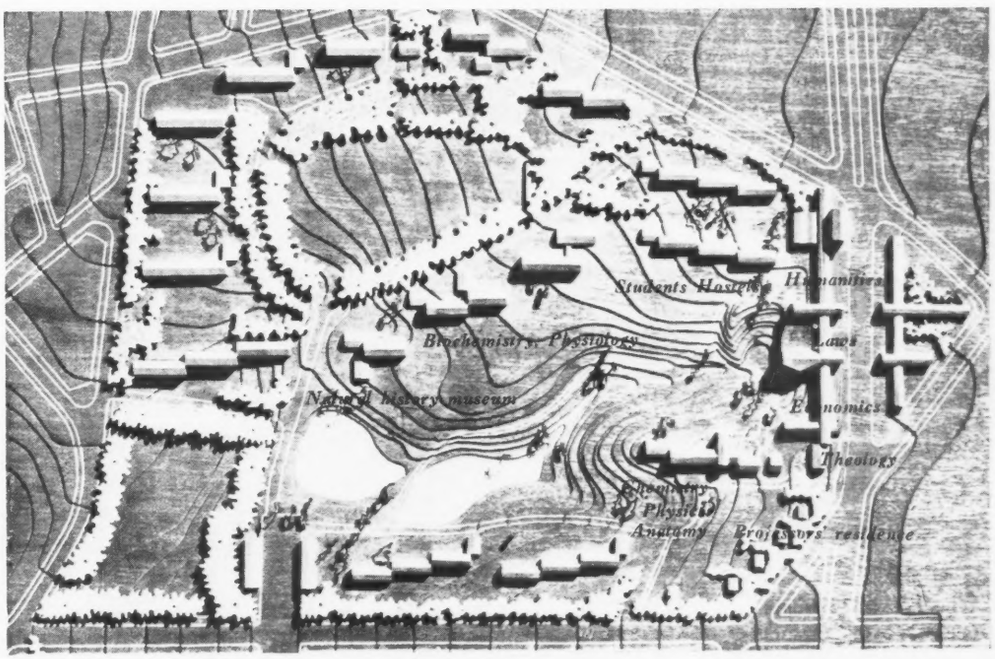
Town Hall, Sollerod. Arne Jacobsen and Flemming Lassen: Architects: May 1947. **e.**

Church of the Advent, Copenhagen. Erik Moller: Architect. June 1948.

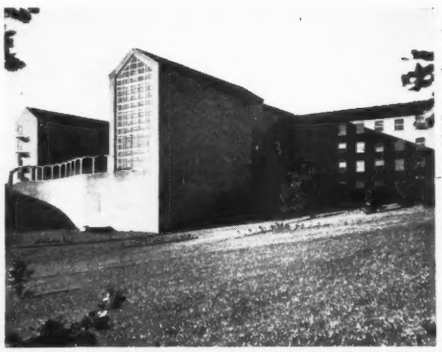
1 AARHUS UNIVERSITY

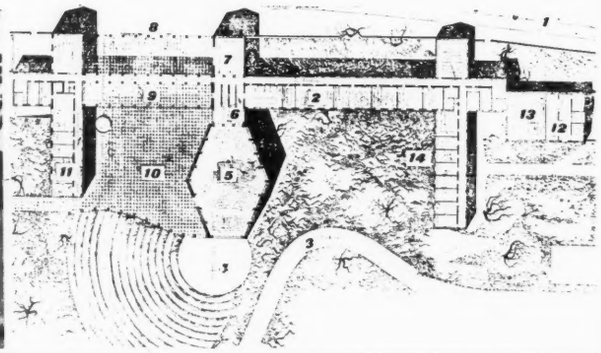
C. F. Moller, Kay Fisker, the late Povl Stegmann: Architects. The design of the university was originally the subject of a competition held in 1931. Building was commenced with the blocks for chemistry, physics, anatomy and humanities. Later the students' hostels, professor's accommodation and natural history museum buildings were constructed. Finally the main buildings with the assembly hall (designed by C. F. Moller) were completed. All buildings are of yellow brick, with (*contd. on p. 230*)

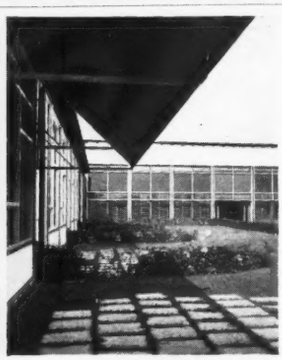




(*contd. from p.* 229) yellow roofing tiles. The north side of the main building (illustrated on page 229) has a characteristic brick pattern. The assembly hall (see frontispiece, page 210) has a panelled ceiling. The plan on page 229 shows the layout of the university buildings as a whole. The illustration on this page is of an exterior view of the main building. Key to plan of the main building on this page: 1, Nordse Ringgade (road); 2, theology; 3, Parkvej (road); 4, open-air lecture theatre; 5, assembly hall; 6, 7, anterooms; 8, terrace; 9, concourse; 10, space for ceremonies; 11, administrative block; 12, cloakrooms; 13, main lecture theatre; 14, professor's accommodation.





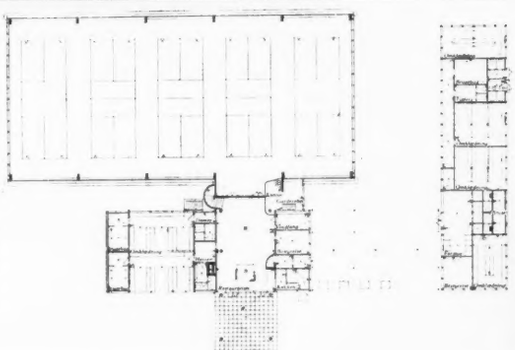


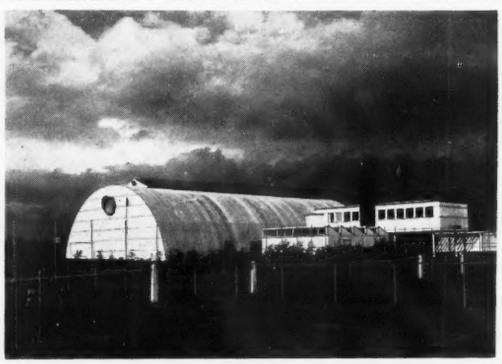
2 SCHOOL AT COPENHAGEN

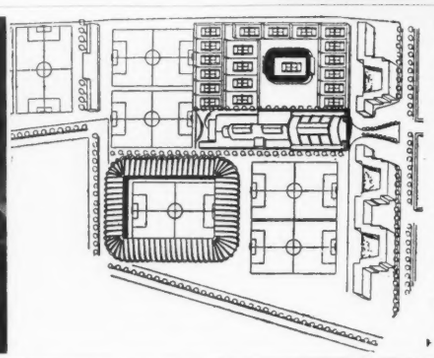
Poul Holsoe and F. C. Lund: Architects. The school has a small children's wing of single-storey classrooms. This wing is white, with yellow sun-blinds. Classrooms for older children, on three floors, face south to the central playground. The illustrations show, left, assembly hall, and right, small children's wing. Key to ground floor plan: 1, baths; 2, changing rooms; 3, bicycles; 4, physics classroom; 5, dining room; 6, cloakroom; 7, kitchen; 8, handicrafts; 9, gymnasia; 10, classrooms; 11, medical block; 12, playground; 13, headmaster; 14, small children; 15, bedrooms.

3 SPORTS CENTRE, GLADSAXE

Vilhelm Lauritzen: Architect. This site is shared by the sports centre and the Marielyst School, and comprises football grounds, athletic grounds, open tennis courts, and a block containing five enclosed badminton courts, with staff quarters, changing rooms and a restaurant. The covered hall containing the badminton courts is constructed of reinforced concrete arches. The illustration shows the exterior of the covered badminton hall. The plan shows the hall, with the restaurant, changing rooms, toilets and offices.





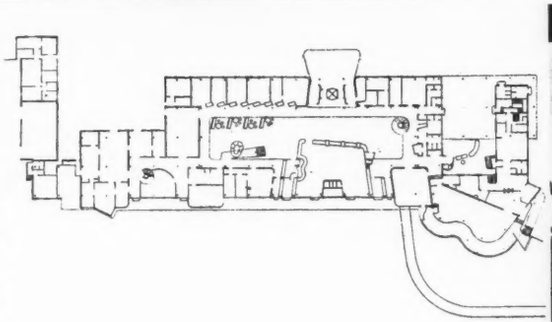


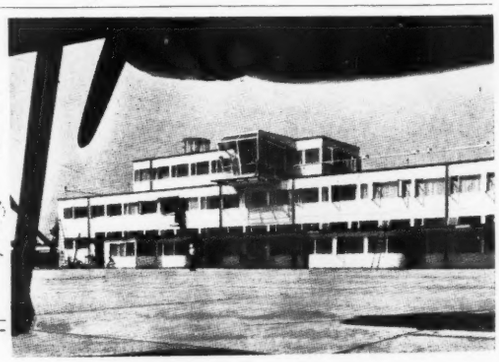
4 STADIUM AT COPENHAGEN

Hans Hansen: Architect. This is the central tournament building in a Sports Centre which comprises tennis courts, badminton courts, covered swimming bath, gymnasia, etc. Accommodation is for approximately 4,000 seated spectators, and cloakrooms and toilets are arranged below the seating. Construction is entirely of reinforced concrete. The roof is carried by four main arches. The illustrations show, on this page, an interior view, and, on the facing page, an exterior view from the main entrance. The axonometric is of the sports centre as a whole.

5 COPENHAGEN AIRPORT

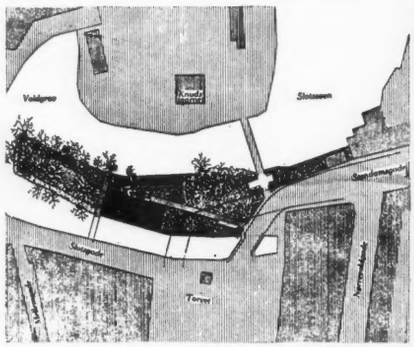
Vilhelm Lauritzen: Architect. The main considerations in design were flexibility and lightness of character, so that alterations and additions could be made as needed. This airport building is constructed simply of horizontal slabs carried on reinforced concrete columns. Partitions and outer walls are light in weight. The façades are covered with white asbestos sheeting, with a hollow space behind containing insulating material. Doors and furniture generally are teak, entrance walls are marble faced, and floors are asphalt or rubber. The illustration shows the main building seen from a runway.

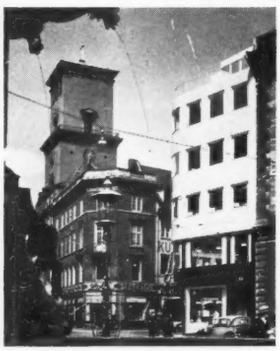


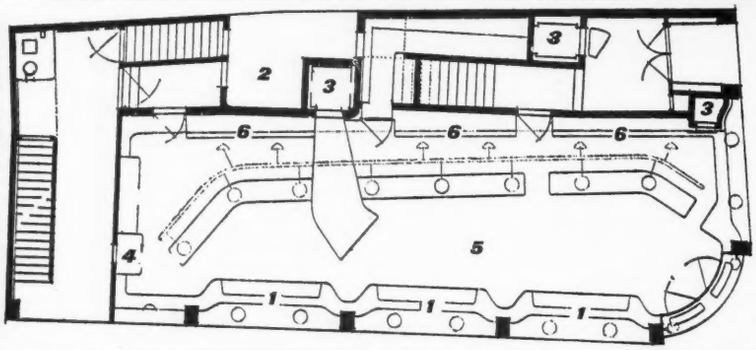


8 PUBLIC LIBRARY AT NYBORG

Flemming Lassen and Erik Moller: Architects. The site chosen is part of the old Copenhagen city fortifications. Particular care has been taken to integrate the building with the old castle walls, and to use materials which do not clash. One wing contains the actual library and reading rooms, and a smaller wing accommodates a museum, meeting rooms and toilets. The illustrations show, left, main library building seen across the lake which is part of the ancient castle moat, and right, covered corridor to the library entrance. The plan shows the building and its relation to the moat.





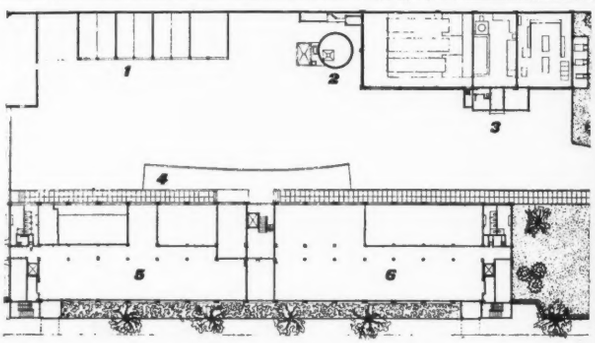


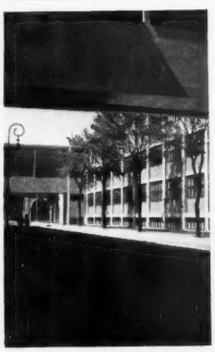
7 ARTIST'S SHOP, COPENHAGEN

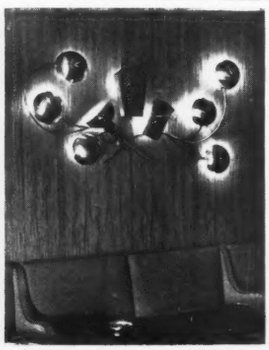
Arne Jacobsen: Architect. The space available was small, as, including an adjoining site acquired for reconstruction, the total was only 2,335 sq. ft. In view of this permission was obtained for the projection beyond the building line from the second storey upwards. As artists' materials are liable to spill and stain, the flooring is dark teak. The illustrations are, facing page, the exterior showing the corner site, and this page, the exterior from Gamle Torv showing clearly the upper storey overhang. Key to plan: 1, counters; 2, light well; 3, passenger lifts; 4, goods lift; 5, shop; 6, shelves.

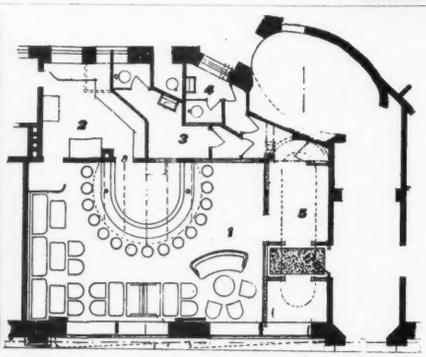
9 FACTORY AT AALBORG

Preben Hansen: Architect. This wing, for the manufacture and packing of cigarettes, has been added to an older factory. The reinforced concrete frame is painted white, with panel infilling of concrete, painted orange. All floor surfaces are asphalt; the double windows have wooden frames, and the whole factory is air-conditioned. The roof is of bituminous felt. All interior paintwork is pale grey, with the various staircases in strong primary colours. The illustrations show, left, the new factory wing, right, the power house. Key to plan: 1, garages; 2, silo; 3, power house; 4, loading dock; 5, manufacture; 6, packing.







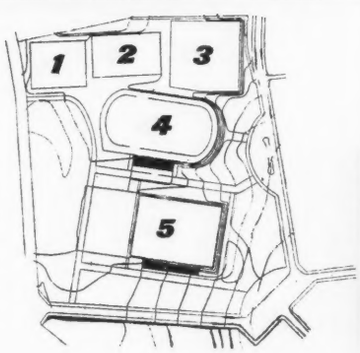


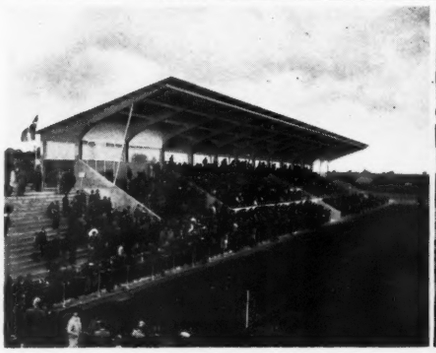
9 GEORGE'S BAR

Orla Boyer: Designer. The reconstruction of a popular, long established bar in Copenhagen. The ceiling and the upper part of the bar wall are finished in fluted stucco, with end walls and dados panelled in African mahogany and maplewood. Floors are of Brazilian rosewood. Furniture is upholstered in blue and tan leather, or blue and grey cloth. Tables are mahogany and the bar itself is composition, with stainless steel working fittings. The illustrations show, left, the bar interior, and right, a wall lamp of matt-finished bronze. Key to plan: 1, bar; 2, lounge; 3, 4, toilets; 5, entrance hall.

10 STADIUM AT ODENSE

Edvard Thomsen and Vagn Kyed: Architects. The whole site is fairly flat, with a slight hill to the south. The football grandstand holds 780 standing and 1,075 seated spectators, with changing rooms and other accommodation for players below at the rear. The grandstand roof is of wooden framing carried on main supports of reinforced concrete, and is covered with a light infilling. The illustrations show, left, grandstand roof, and right, entrance and turnstiles. Key to plan of site: 1, throwing sports; 2, hockey; 3, cricket pitches; 4, athletic competitions; 5, football ground.

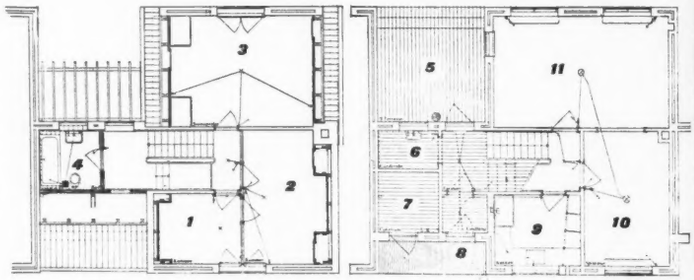


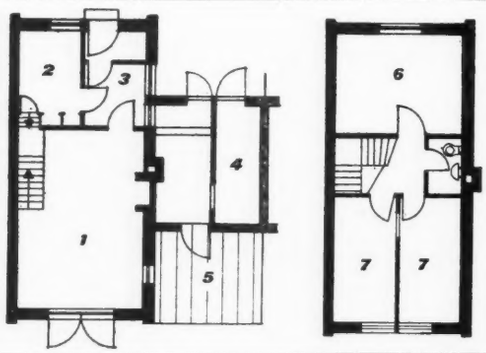



Stelling

11 HOUSES AT GENTOFTE

Eske Kristensen: Architect. In these houses a covered terrace is provided at front and back between each, giving added privacy and allowing a garden wider than normal. The design was adapted to a sloping site, the entrance being in the lower part of the house, with stairs leading down to cellars and up to the ground floor. The main walls are of yellow brick, and the roofs of red tiles. The terrace walls are of red brick, with brick floors. Key to plan: first floor —1, 2, small bedrooms; 3, main bedroom; 4, bathroom;—ground floor—5, terrace; 6, 7, cloakroom, bicycles; 8, entrance; 9, kitchen; 10, dining; 11, living.



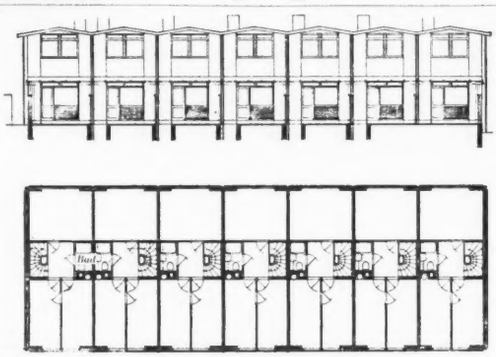


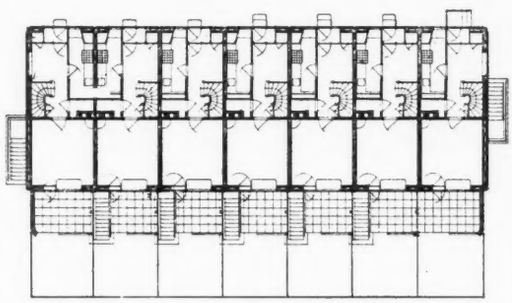
12 HOUSES AT VANLOSE

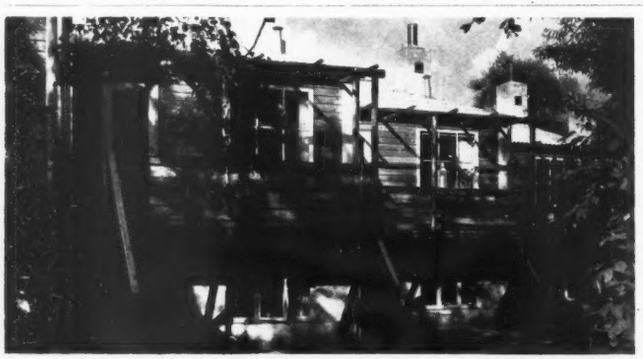
J. Juul-Moller, K. Agertoft and A. Gravesen: Architects. These houses may be described as a further development of the terrace houses at Husum by Magnus L. Stephensen (No. 13, below). In this case the houses are grouped in pairs and are linked together on either side. The outer walls are rendered and painted white and dark red, and the roofs are tiled. Windows are of wood, painted white. The illustration shows the rear elevation. Key to plan: ground floor—1, living room; 2, kitchen; 3, entrance hall; 4, cycles; 5, open terrace;—first floor—6, main bedroom; 7, small bedrooms.

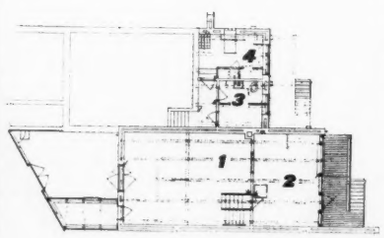
13 HOUSES AT HUSUM

Magnus L. Stephensen: Architect. A total of 120 exactly similar houses rented to families of low income and many children. On the ground floor each house has a dining room and kitchen facing the street, and a living room with a large window. From the garden, steps lead to the cellar containing laundry, drying room and fuel space. On the upper floor are one large and two small bedrooms, with bathroom and w.c. The walls are red brick, with whitewashed concrete blocks under the upper windows. The top illustration on the facing page shows the garden elevation of the houses.







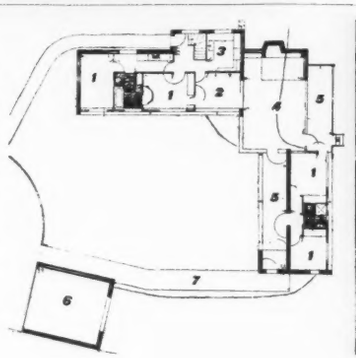


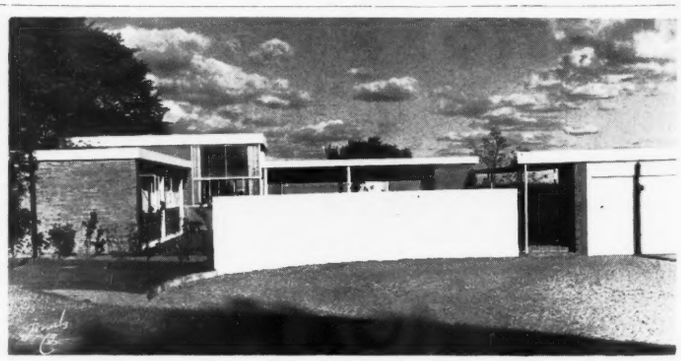
14 HOUSES FOR ARTISTS

V. Moller-Jensen: Architect. Built in Utterslev, these combine living-space with good working conditions for artists and sculptors. There are three different types, each with a studio and from one to four rooms, twenty-one houses in all. The studio in each case has a floor area of 377 sq. ft. and is lit by approximately 50 sq. ft. of window. Internal equipment is kept to a minimum. The walls are of grey-washed brick and yellow board, the roof is grey asbestos. The illustration shows the staggered layout of the units. Key to plan: 1, studio; 2, living room; 3, bathroom; 4, dining room.

15 HOUSE AT VEDBAEK

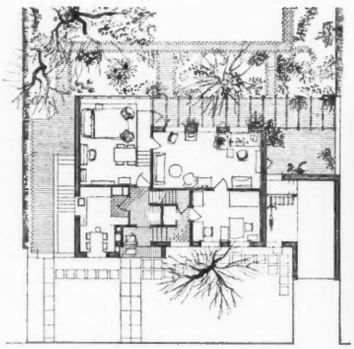
Frits Schlegel: Architect. This country house, situated in a borough town approximately 15 miles from Copenhagen, stands on a well-chosen site facing the sea (the Oresund). It is constructed of warm red brick, with certain walls and the flat roof of concrete painted white. The lower illustration on the page facing is of an exterior view showing the living room and terrace. The illustration on this page shows an exterior view from the garden. Key to plan on this page: 1, bedrooms; 2, dining room; 3, kitchen; 4, living room; 5, terrace; 6, garage; 7, pergola.

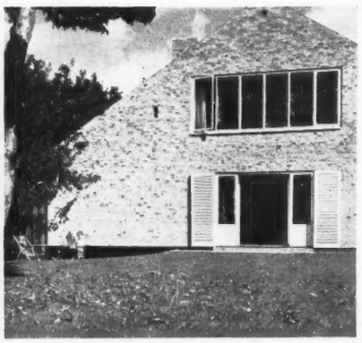


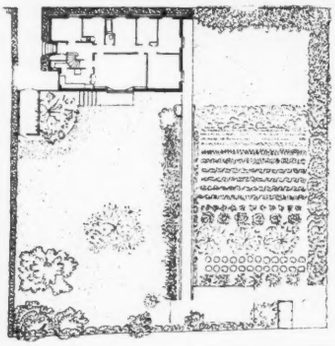


16 HOUSE AT HELLERUP

Erik Moller: Architect. This house was designed by the architect for his own occupation. Accommodation for a drawing office staff was required, and the whole of the space below the roof on one side of the house has been utilised for this purpose. The nouse is of brick, with pantile roof, and all windows are wood, painted white. Special attention has been given to the layout of the garden, keeping existing trees and natural features. The main garden wall has applied trellis for climbing plants. The photograph shows the elevation to the garden.





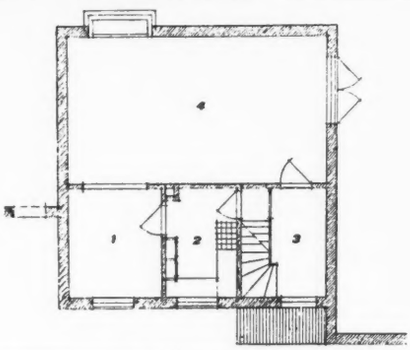


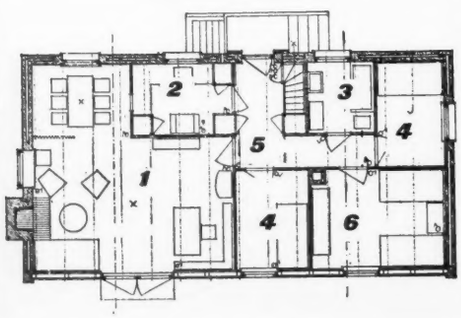
17 HOUSE AT RUNGSTED

Steen Eiler Rasmussen: Architect. The site, 12 miles from Copenhagen, is in a secluded cul-de-sac. The walls are of cavity construction, the outer skin being of brick, and the inner one of partition blocks, plastered. The roof is of asbestos tiles. The living room runs across the upper floor, and an upstairs tea-pantry minimises stair-climbing. The rooms needing most housework are on one plane. All floors are beechwood parquet, beds fold into walls, and the deep eaves provide ample cupboard space. The illustrations show, left, the front of the house, and right, the garden elevation.

18 HOUSES AT VANGEDE

Arne Jacobsen: Architect. These terrace houses are situated in a suburb of Copenhagen. By placing the houses obliquely on the site in relation to the road, privacy is increased for each house, and the difficulties of the slope are overcome. Each house has a private terrace on to the garden. The dining room connects directly with the kitchen. Construction is of brick and the roof is covered with pantiles. The illustration shows the front elevation. Key to plan: 1, dining room; 2, kitchen; 3, hall; 4, living room



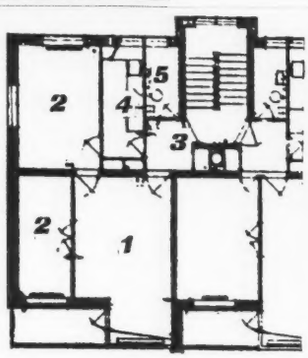


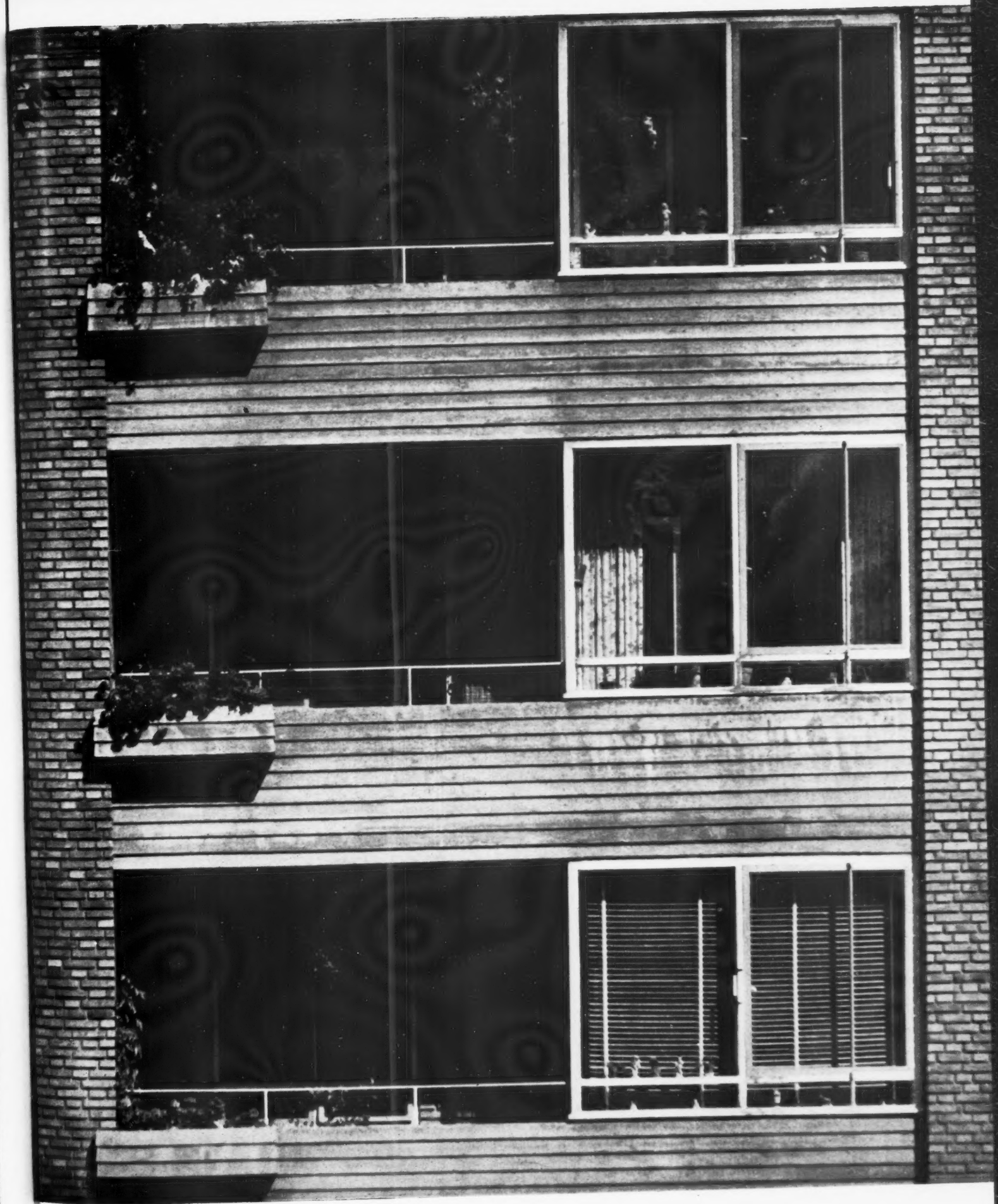
19 HOUSE AT KLAMPENBORG

Erhard Lorenz: Architect. Built during the occupation on a site which is part of an old park containing many fruit trees. Regulations at the time restricted the maximum overall area to 1,184 sq. ft., and timber shortage dictated a single-storey design with a simple roof construction. The house is built of dark red brick with raked joints, and the south frontage is faced with vertical weatherboarding. The illustration shows the south elevation. Key to plan: 1, living room; 2, kitchen; 3, bathroom; 4, small bedrooms; 5, hall; 6, main bedroom.

20 FLATS AT COPENHAGEN

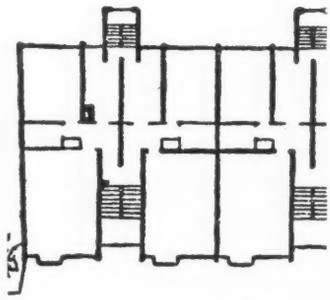
Knud Hansen: Architect. A five-storey block of three-room flats situated in a Copenhagen suburb. Each flat has its own balcony, withdrawn into the building to give privacy, and with access from the living room. The balconies are faced with concrete, and the intermediate walls are of brick. Windows are steel, painted white. The illustrations on this page show, right, an exterior view of the site, and left, the façade. Key to plan on this page: 1, living room; 2, bedrooms; 3, hall; 4, kitchen; 5, bathroom. The photograph on the facing page shows the balconies in detail.

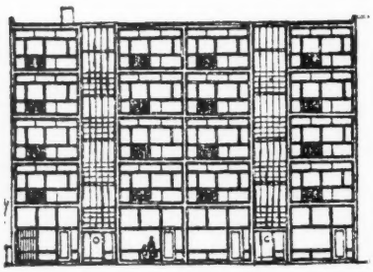




21 FLATS AT ORDRUP

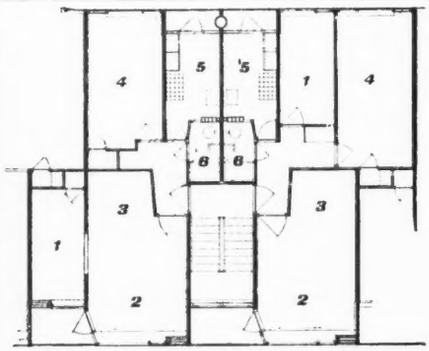
Mogens Lassen: Architect. The construction of these is based on the box-frame principle, all division and gable walls being structural and load-bearing, cast in situ, and providing a stiff skeleton, in conjunction with the flooring, on which the façade is carried lightly and freely. The shuttering was of standard steel plates, and construction was simplified by use of a crane extending over the whole site, enabling an entire floor to be completed in four days. The non-structural longitudinal walls do not carry loads. The illustration, right, shows the main elevation.





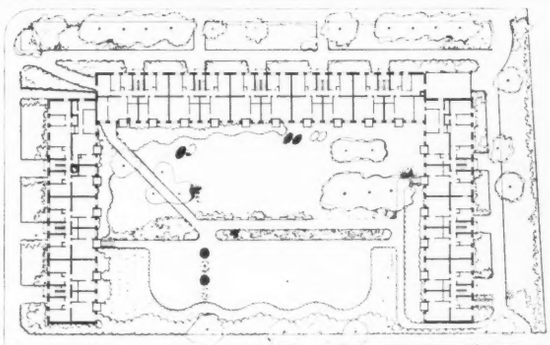
22 FLATS AT CHARLOTTENLUND

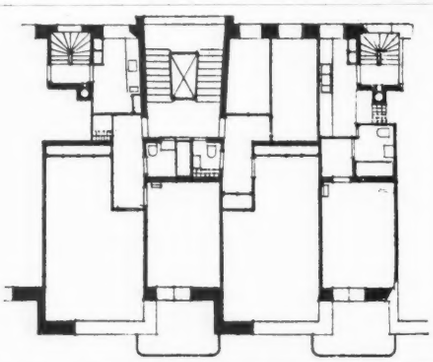
Hubert Paulsen: Architect. This block of small flats is constructed with transverse reinforced concrete walls, on the box-frame principle. Each flat has its own balcony, with full shelter and privacy. Panel infilling is of red brick, and the basement is of yellow brick, concrete walls are whitewashed. The illustrations show, left, a detail of the balcony to each flat, and, right, the main elevation. Key to plan: 1, small bedroom; 2, 3, sitting space and dining space in the living room; 4, main bedroom; 5, kitchen; 6, bathroom.



23 FLATS AT HUSUM

J. Houmoller Klemmensen: Architect. Built in a suburb of Copenhagen, the flats are of two and three rooms, and each has a small balcony which is recessed into the building to ensure privacy. Construction is of red brick, with roofing of red tiles, and the balconies are whitewashed. The block is U-shaped, facing south, and the common garden preserves the natural features of the site. The illustration shows an elevational view, and the plan is of the site as a whole.



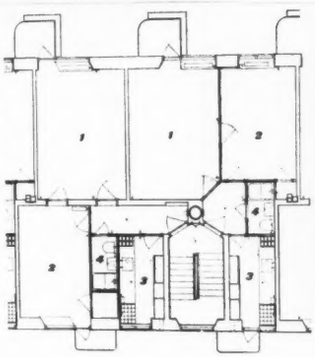


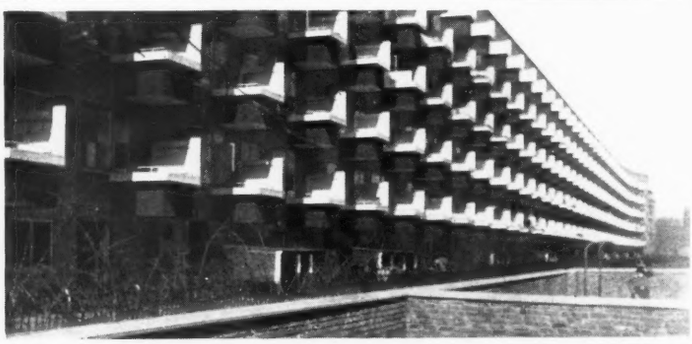
24 FLATS AT COPENHAGEN

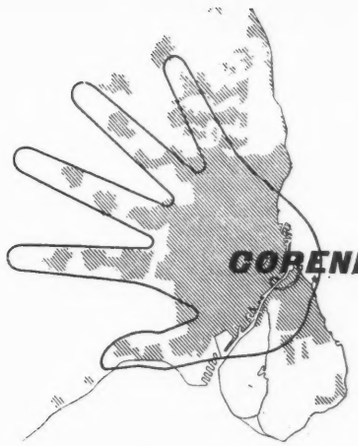
Kay Fisker and C. F. Moller: Architects. This seven-storey block of small flats is on a waterside site in the centre of Copenhagen. Flats are of one and three bedrooms, living-room with dining space, bathroom, kitchen and balcony. All balconies are on one side of the building, facing west. Special features include indirect lighting, lifts and rubbish chutes. The larger flats (with a gross area of approximately 860 sq. ft.) have separate sanitary accommodation, but this is shared in the smaller types. All staircases are of wood, and each serves two flats. The illustration shows the elevation with balconies.

25 FLATS AT COPENHAGEN

Povl Baumann and Knud Hansen: Architects. A block of 210 small flats for workers, incorporating a school. The site slopes gently upwards from the school playground (shown in the foreground of the illustration) so that the basement flats are approximately 10 feet above ground level on that side. Construction is of yellow brick with yellow pointing. Balconies are painted olive green, and flower boxes and sun shelters are painted white. The illustration shows the elevation to the school playground. Key to plan: 1, living room; 2, bedroom; 3, kitchen; 4, bathroom.







COPENHAGEN REGIONAL PLAN

The preliminary proposals for a Copenhagen Regional Plan, which were drawn up for an advisory committee appointed by the Danish Town Planning Institute, were published in January, 1948. The report, which is described below, now serves as a basis for negotiations with the interested municipalities, government authorities and institutions. In addition, more detailed investigations are being made into the assumptions on which it was based.

OF DENMARK'S four million inhabitants the Copenhagen Region today contains one million, one hundred thousand, and is still increasing in size.

The advantages and disadvantages of so big a town in so small a country is a subject of heated controversy in Denmark. So far, however, sufficiently detailed information is not available on which to base a national plan.

Population estimates by statistical departments have therefore been accepted as primary assumptions. According to these, Greater Copenhagen will continue to grow in the near future, without, however, exceeding a population of one and a half million.

It was considered desirable not only to plan for this final development, but also for an intermediate stage. For this reason the proposals include two plans, one for a population of one million, three hundred thousand inhabitants, and the other for a maximum population of one and a half million.

The first question to be decided was that of the most desirable city structure. Should Copenhagen be radically broken up and dispersed because of the danger from atom bombs and other offensive weapons? Should the natural values of the coastline to the north—along the Sound—be exploited by building the town in a long, narrow ribbon reaching right up to the town of Elsinore on the north coast, or should there be a system of satellite towns, in spite of the fact that towns near Copenhagen, which theoretically fill the role of satellite towns already, have grown more slowly than many provincial towns?

The general opinion was that an existing town should not be changed, through replanning, from one type to another, unless for certain exceptional reasons. The period of changeover under such replanning would necessarily be extremely long and painful, with no guarantee that the future will accept the intended benefits of the type pursued. It was therefore thought more expedient to continue the development of Copenhagen according to its present structure, to develop its good features and to alleviate its bad ones.

According to its structure Copenhagen is a centralized city of the ordinary continental type. It is situated on the coast with the sector available for growth limited to a sweep of 120°. Medieval Copenhagen forms a clearly marked business and administrative core, with the additional built-up area—supported by an extensive network of tramways—forming concentric layers around this centre.

Conflicts characteristic of centralized cities with fairly evenly distributed populations appear here in an aggravated form: main radial streets with extremely heavy traffic, long distances between outer residential districts and work-places in the centre, and conversely from the centrally-situated residential districts to the open spaces outside the city.

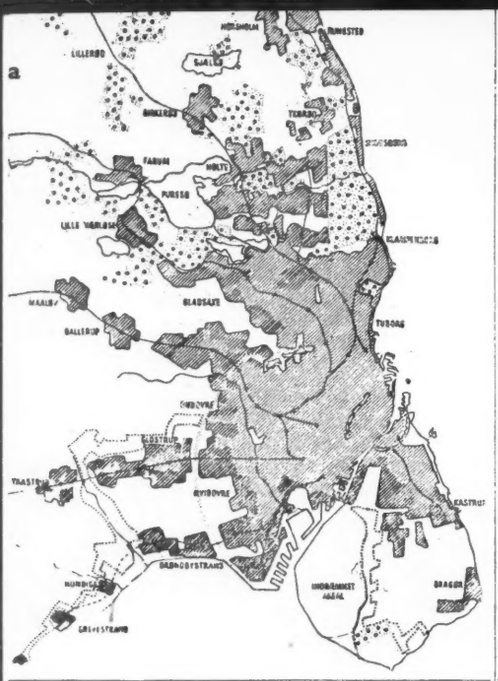
The harbour has the appearance of a river port with an almost central position in relation to the city. This has led to the usual difficulties at the intersections of land and sea traffic. A local physical feature of the greatest importance to the planner is that all woods and lakes, hills and valleys and the best bathing beaches, that is all natural places of recreation for the population, are located to the north, while the western region forms one large, fertile plain. The migration from the city—beginning with estates and big villas, up to the mass migration following the electrification of the first suburban railways—was therefore directed to the northern parts of the region. Due to intensive building activity, however, the first houses have been deprived of their original access to the countryside. But what is worse, distances are continuously extended between the central parts of the city and its areas of recreation.

In the preliminary proposals it is stressed that the growth of the city in rings must now be stopped. Distances from the centre of the city to its outskirts correspond to that of a city of three or four times the size. The present tramway terminals, for instance, are about forty-five minutes away from the centre. The capacity of the central tramway routes is already taxed to the utmost and a considerable extension of the system must even now be anticipated. At present there are only two suburban railways in the Copenhagen area. It is proposed that there should be built, in stages, a number of electric railways extending into the surrounding country. Future suburban development, instead of forming concentric layers, will take the form of 'ribbons' or 'fingers,' along these railway lines. Around the stations local centres with shops and institutions will be developed. From each centre there will be frequent and convenient connections direct to the centre of the city, and the individual station development will thereby become an integral part of the whole metropolis. Between the fingers there will be wedges of open space which preferably should extend right up to the built-up areas served by trams.

It is proposed to direct the future expansion of the city principally to the west, where, amongst other things, the plain and the shores would be made more attractive by planting woods and establishing facilities for sea bathing. Simultaneously, efforts should be made to stop the expansion of the built-up areas, partly over the natural recreation grounds to the north and partly over the island of Amager, where it is necessary to improve, among other things, the intersection of land and sea traffic.

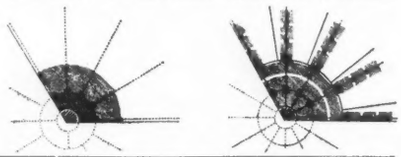
Care has been taken generally to make the best of the city's existing facilities, and of the

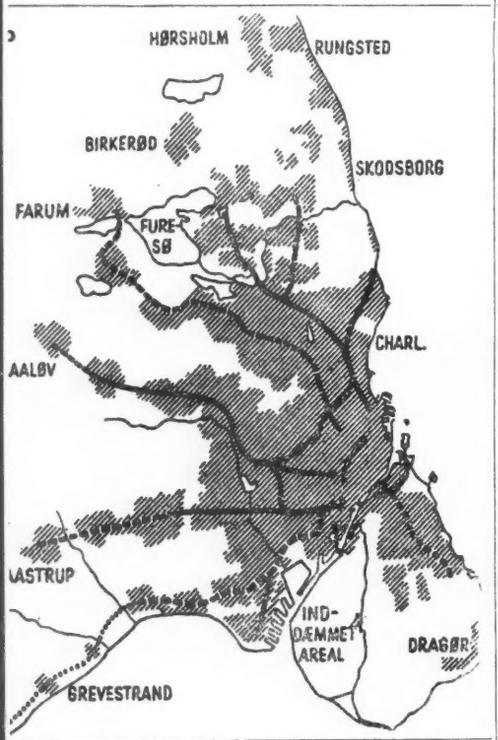
Above, Copenhagen from the air, showing the central part of the city and the harbour. The gardens to the extreme right in the middle are those of Tivoli, and the hexagonal open space near the water in the middle foreground is that before the Royal Palace of Amalienborg. Right, a map showing the extent of Copenhagen to-day. The titlepiece at the head of the page is a diagrammatic illustration in the form of a hand with outstretched fingers, of the interim proposals for the Copenhagen region, which are illustrated in greater detail on the following page.

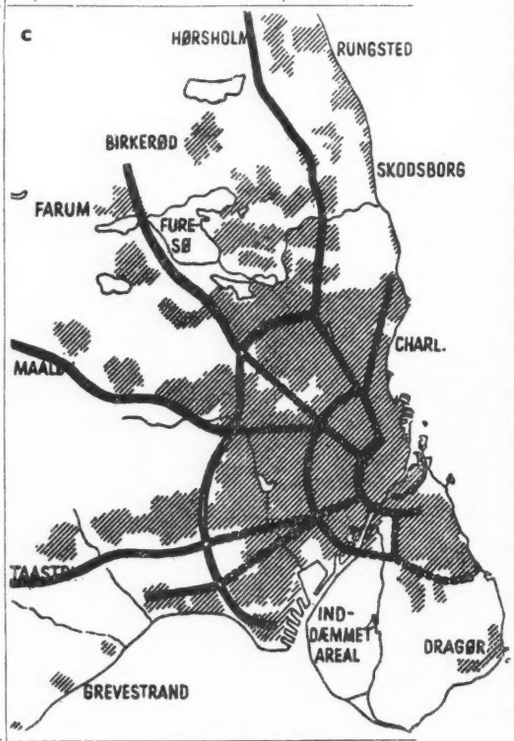


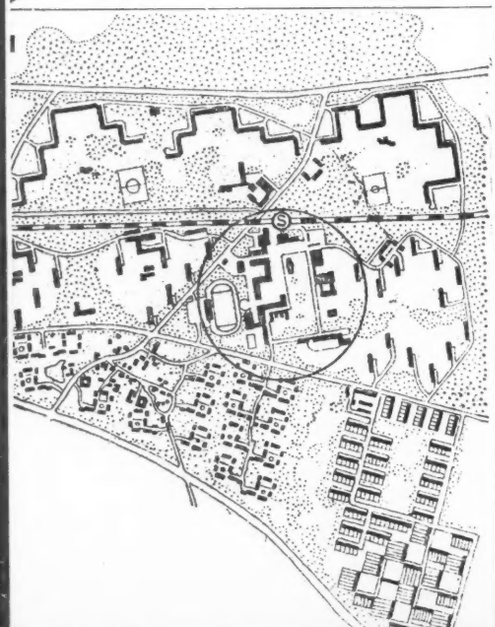
COPENHAGEN REGIONAL PLAN

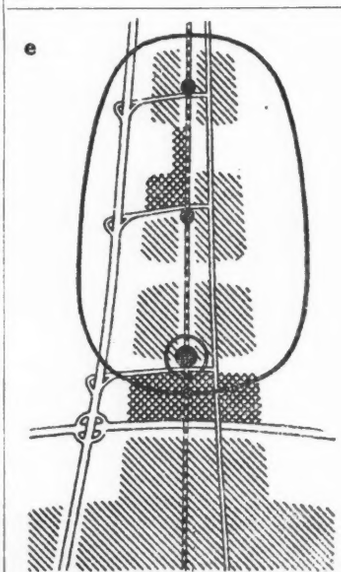
The interim proposals for the replanning of Copenhagen are summarized in diagrammatic form in the titlepiece on the previous page—a hand with the palm on the existing city centre, and fingers stretching out along the suburban railway lines. a, is an actual map of the proposals; light shading indicates existing built-up areas, and dark shading, new development. By a certain amount of clearance, 'green wedges' have been brought right up to the city centre, and building would be prohibited in them. b, shows the urban railway system advocated and c, main roads. d, is a layout for the largest residential unit, the district, with 10-20,000 inhabitants; the civic centre is shown inside the circle. e, is a diagram of one of the fingers, composed of several district units. The encircled civic centre at the root contains institutions which serve the whole finger. Residential areas are single-hatched, industrial, cross-hatched. Immediately below are diagrams which show, left, the existing distribution of industry and, right, that proposed.











extensive freedom of choice which the inhabitants of a metropolis possess, such as the kind and place of employment, choice of living districts and housing types, of spare time activities and of acquaintances. Copenhagen's public utilities are in most ways very effective, and, because of the great demand, often relatively cheap. Certain revisions are suggested in the system of public communications—tramways, trolleybuses, and suburban and underground railways—which would make for compactness and coherence of the city's structure. But, at the same time, the green wedges will provide an extensive periphery of built-up area in direct contact with open spaces and the countryside. With the proposed development of public communications a great increase in motor traffic is anticipated, and to allow for this a comprehensive system of special motor roads has been planned, free of intersections, and with future extensions right into the centre of the city.

A fairly complex traffic system is inevitable, for from all residential areas there must be easy access to a considerable number of places of employment, and vice versa. It is suggested that industry should be situated in specially equipped, extensive industrial areas, at the city end of each of the ribbons of development. Thus distributed between the different sections of the city, it will enjoy the best possible access to the town as a whole.

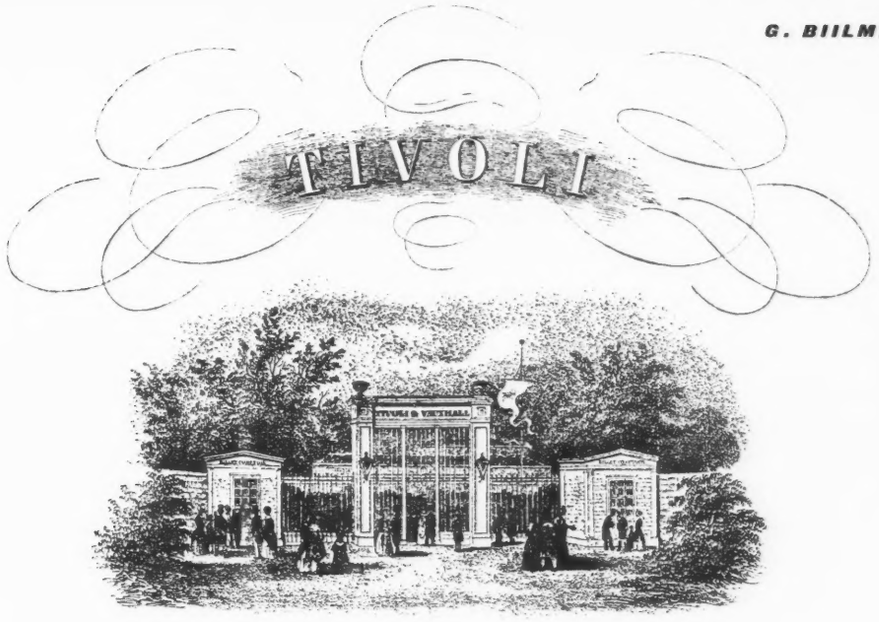
The composition of the residential areas is expected to change somewhat in favour of detached and semi-detached houses, which today only make up about 25 per cent of the total number of residences. Simultaneously, it is anticipated that flats will be supplemented to a great extent by summer cottages situated sufficiently near the city that they may be utilized all the year round.

As regards the subdivision of the city into units, the chief attention is being directed at present to the smallest unit, the residential group with 1—2,000 inhabitants, for it is here that one of the key problems of physical planning lies, that of relieving the housewife of the most tiresome routine work in the home. The largest unit (which in the new sections of the town will encircle the station, and in the older parts will be adapted to the existing city-geographical features) includes a varying number of the smaller residential groups.

The medium, or neighbourhood unit, at any rate, in these interim proposals, does not play the dominant role which it does in other town plans.

Certain parts of the above proposals may be carried out as part of the town plans of the different municipalities. It is to be hoped that other features—for instance a building ban in those areas where the plan proposes development should be halted—will shortly be secured through legislation. The future administration of the Copenhagen region is another question of importance to its successful re-planning. Fortunately the prospects are relatively good. Last January a commission submitted a report on administrative reforms within the region. The report contains a proposal for the establishment of a regional council. It is further suggested that this council should be in charge of regional planning. Also, this spring, the Housing Ministry submitted a new act to supplement the old Town Planning Act. It deals with the overall planning of regions composed of interdependent municipalities, like the Copenhagen region. If brought into force it would furnish the much needed power of keeping certain areas free of building development.

G. BIILMANN PETERSEN



A history of Copenhagen's pleasure garden from 1843 to the present day

FOR THE SUMMER visitor to Denmark, Copenhagen and Tivoli are almost synonymous. Yet few realize that the survival of Tivoli as a piece of late romantic landscape layout is due, paradoxically enough, to the fact that it lies in the middle of the town—where short leases serve as a deterrent to building developments or other major changes.

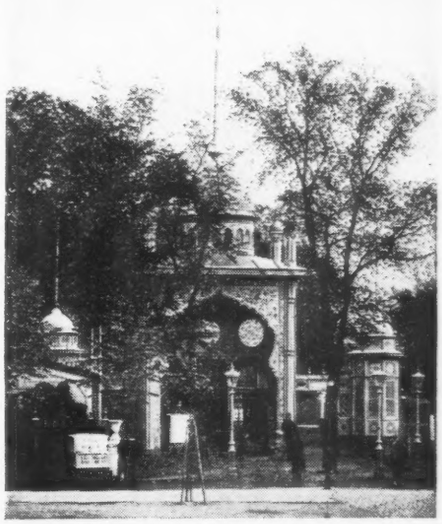
When Tivoli was first opened in 1843, Denmark had for long been labouring in the financial straits that followed upon the Napoleonic wars. This circumstance acted as a compelling reason for the maintenance of that sense of moderation which is so clearly implicit in the whole European romantic tradition since Rousseau. What is more, the first popular ideal after the French Revolution was the outcome of that contemplative approach to nature which goes under the name of the idyllic, and which is determined as much by ethical considerations as by æsthetic, while another factor which made itself felt—though in a less obvious, more subtle fashion—was the influence of the Orient; the Ukiyoyi painters showed a people who enjoyed food, light and fireworks with the same refined appreciation that they accorded to music and nature.

Tivoli, then, came into being partly as a counterweight to the sterner necessities of the times, partly as an expression of their spiritual ideals. Copenhagen was the King's town, and the King was an absolute monarch standing at bay before the forces of Liberalism. The town still stood enclosed among fortifications, and the gates were locked at nightfall. It had only one park, the Rosenborg Garden, which was not nearly big enough for the needs of the 120,000 inhabitants which Copenhagen contained when Tivoli was laid out.

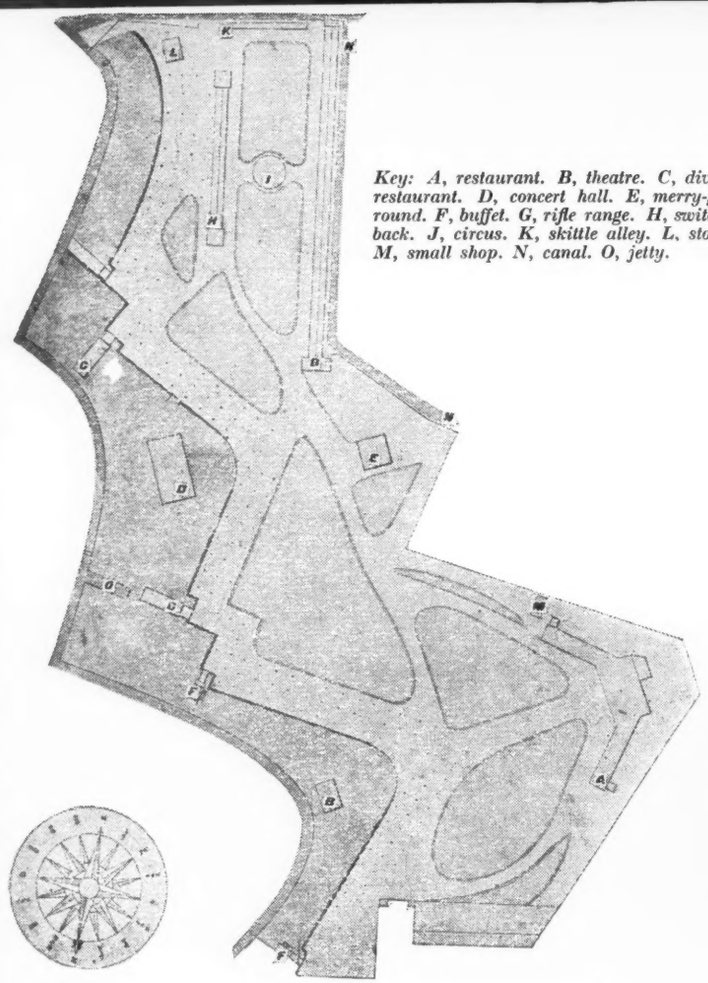
The desire to enlarge the town was as general as it was natural, but it came up against obstruction from the highest quarters. Suppression of newspapers, fines and imprisonment for their editors, were the order of the day. Various proposals for making a park outside the town were brought before His Majesty; and against all expectations George Carstensen, in April, 1843, secured a five years' concession to operate a pleasure garden as from July 1 of that year. It was not, however, till May 29 that the royal resolution allowed him to have the lease drawn up for about 11 tdr. of land belonging to the fortified zone just outside the west gate (Vesterport). Carstensen had secured the required permission because he was willing to accept an arrangement which was assured only for five years, whereas his competitors would not consider doing business with less than a twenty years' concession.

It is thus to George Carstensen's courage that the existence of Tivoli is due, and his success from the start of the enterprise must be ascribed to yet other characteristics which he possessed: an exuberant fancy, a constitutional inability to put up with anything but the best (whatever it might cost), and finally, a lightning-like commercial keenness and an energy which was inexhaustible as long as anything was to be gained by it. Immediately the option had become a reality, which occurred on May 29, Carstensen established a company; this was in being by June 8, and the garden was laid out and provided with amusements and a notable collection of permanent buildings by its opening on August 15.

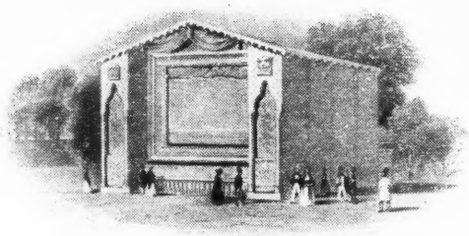
The idea of an enterprise such as Carstensen's was not only unfamiliar, it had not even been dreamt of before in the little princely town of Copenhagen. But then Carstensen was not himself a Copenhagener. His short life was an ever-changing adventure in three continents. Carstensen had been born in 1812 at Algiers where his father was secretary to the Danish consulate. In 1815 his father had become consul in Tripoli, and in 1820 the boy was sent to school in Denmark. He became a student in 1832, and the next year took his bachelor's degree and was commissioned as a Lieutenant in the Guards Rifle Corps. There followed some years during which he lived the life of a dandy, first in Copenhagen and later in Tangier, where his father was now residing. After that he spent a year in Paris where, having a remarkable gift for language, he edited his first paper. The following year

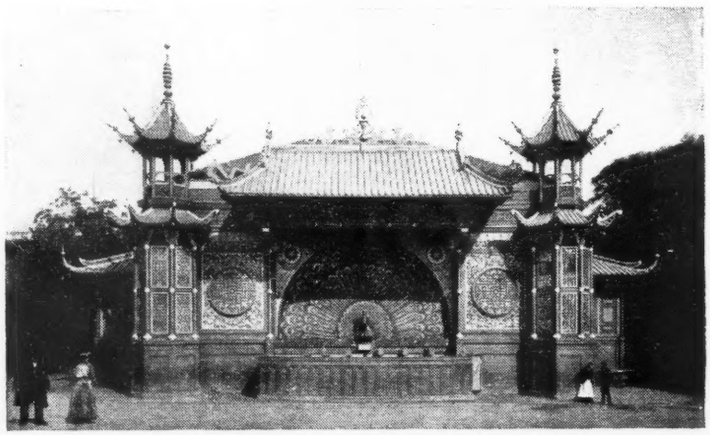


MAIN ENTRANCE *The title-piece at the head of the page shows the first main entrance to Tivoli. This restrained work was designed by Harald Stilling and erected in* 1843. *Above is the main entrance by Vilhelm Dahlerup, which replaced it in* 1879.



Key: A, restaurant. B, theatre. C, divan restaurant. D, concert hall. E, merry-go-round. F, buffet. G, rifle range. H, switch-back. J, circus. K, skittle alley. L, store. M, small shop. N, canal. O, jetty.





THEATRE *Left, a plan of the original Tivoli, which was laid out in* 1843. *Top, the first theatre, designed by Harald Stilling, from a contemporary lithograph. Above, the third Tivoli theatre, designed, in the Chinese style, by Vilhelm Dahlerup in* 1874.

he was working as a journalist in America and producing two newspapers in Philadelphia.

In 1839 Carstensen came to Copenhagen and attracted notice by his elegant attire and extravagant habits. After discovering that he could not become an actor, he edited the literary journal *Ny Portefeuille*, in which he enlisted all the most gifted writers of the town including Hans Andersen. In the following year he transferred the editorship to someone else, and himself went to Paris. He returned to Copenhagen in 1841, and finding that the paper had not been able to prosper without his presence he allowed it to collapse and started a new one, *Figaro*.

In one way *Figaro* provided support for the starting of Tivoli. To attract attention to the paper Carstensen arranged various banquets and feasts in the Rosenborg Garden as well as on the riding track and in the riding school at Christiansborg Palace. These *Figaro* feasts set the town talking and must have made a considerable impression. He was able, therefore, to start work on Tivoli with at least some measure of fame already behind him.

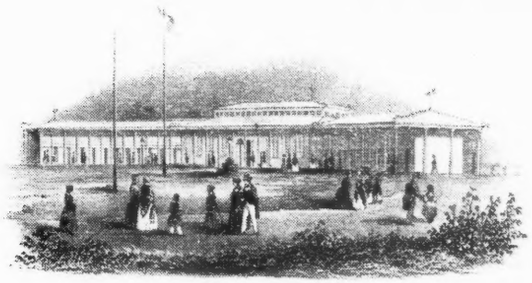
Despite its shortness, Tivoli's first season proved a triumphant success. After it was over Carstensen travelled to Berlin, and in January, 1844, he went on to Milan, Rome and Naples, and to Florence, where he met his cousin Fanny Elisabeth Webb, a pretty girl from Cornwall, then twenty years of age. In the spring of 1845 they were married and would appear to have been happy together, but as early as December, 1846, Fanny Carstensen died.

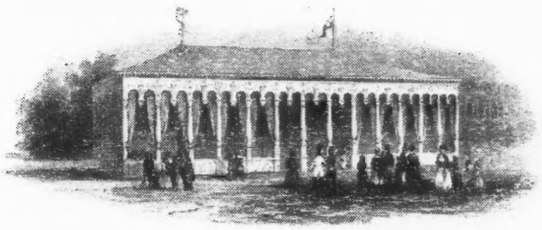
Tivoli's second season, likewise, was a great success. The figures of attendance were phenomenal, and the price of the shares rose to a giddy height; but 1845 saw a setback and the next three years were bad. In the last of these, 1848, the country was at war. Carstensen joined as a volunteer and could not, therefore, act as director during that season. The management of Tivoli used his absence as a means of getting rid of him, for they had failed all along to understand Carstensen's ideas and had continued to cavil even whilst much money was being earned; in the bad years, of course, their opposition grew stronger. At that time Carstensen's receipts from Tivoli were very small and he tried new speculations in the shape of winter pleasure places, the Casino and the Union Hotel, only to lose 100.000 Rigsdaler (£10,000)—a very considerable sum in view of conditions in Denmark at the time.

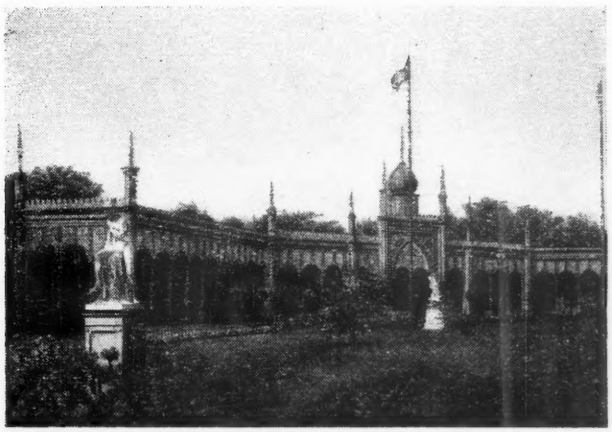
In 1848, having lost his wife and the whole of his fortune and having been driven from the Tivoli venture, Carstensen decided to take a position as adjutant to the Governor of the Danish Virgin Islands. During his term of service there, which lasted from 1849 till 1852, he fell happily in love with the daughter of an English planter, Mary Ann Sempill. They married and had two sons. In 1852, Carstensen, with his wife and children, travelled to New York and there, in collaboration with the German architect Gildemeister, he took part in a competition for an exhibition palace. They won the first prize, but Carstensen was cheated of his share. Hans Andersen, in his book *My Life's Adventure*, writes about this: 'Carstensen's biggest failing is a rare good nature. He has often been mocked and misled, nevertheless, his creativeness continues as a lasting boon and joy for many.' Andersen also refers to him as 'a real genius.'

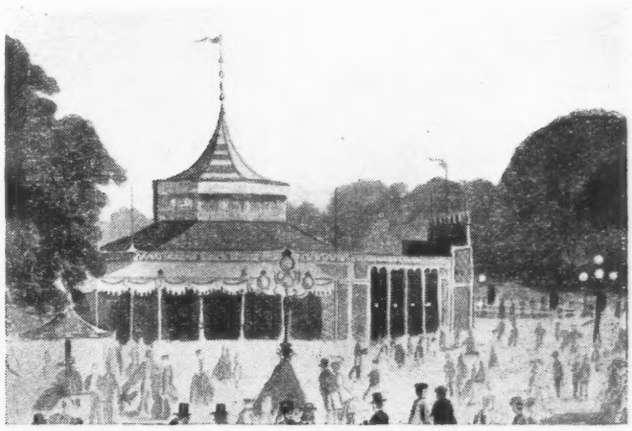
In 1855, Carstensen again returned to Copenhagen, where he tried to make preparations for resuming his work at Tivoli, but was compelled to withdraw. In 1856 he obtained permission to operate an enterprise after the style of Tivoli in the royal suburb of Frederiksberg, and soon built the first part of the Alhambra, which was a large beer hall. For the remainder of the year this brought in so good an income that he was able to resume his old extravagant ways and to send for his wife and children from the West Indies, where they had returned and were then living. But in January, 1857, before his family had reached home, Carstensen died. The Alhambra was completed in accordance with his plans, but after his death it could not be made to pay. The widow twice received some support from Tivoli. Later she moved to New York, where she died.

The founder of Copenhagen's Tivoli must, therefore, be thought of half as a stranger to the town. We have the picture before us of a cosmopolitan dandy with rare gifts and accomplishment in languages, in literature, in music and other directions. He experienced no urge to apply these gifts in personally creating works of art, but he was an active connoisseur with a gift for the popularization of whatever he thought beautiful and spirited. He possessed an inherent feeling for significant form; and since he never struck deep roots at any one









BAZAAR *Top, the first Tivoli bazaar by Stilling, 1843; from a contemporary lithograph. Above, the second bazaar built on the same site in 1863, in the Turkish style, and also by Stilling; from a chromolithograph.*

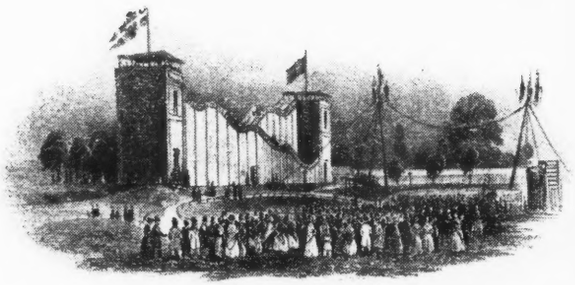
CONCERT HALL *Top, the first concert hall by Stilling, 1844; from a contemporary lithograph. Above, the second concert hall, 1863, by J. A. Stillmann, which was blown up in the war by the Germans, but has now been rebuilt.*

place, he saw things from the standpoint of an outsider completely free from the domination of local considerations. There are, indeed, good grounds for maintaining that George Carstensen was a great and creative architect, and no less so because he always worked in co-operation with those technically more qualified. Harald Stilling, his collaborator for Tivoli and Casino, was an able architect; but none of his other works is as successful as those at Tivoli and Casino. Carstensen's part in the work on the exhibition palace in America must necessarily have been inspirational rather than technical.

The fundamental plan of Tivoli was notably good. The space available, which had the well-known star-shaped pattern of an old fortification, is utilized in an extremely competent fashion. Along the indented line of the fortification the promenade is laid out so as to form a double avenue which on the side away from the town encloses the *glacis* intended to protect the fortification from attackers. On the other side the ground falls away towards a covered bridge over what was a defensive moat. What is so good about this plan is its avoidance of any striving after the monumental. The central feature in the layout is a little zig-zag promenade which, through the element of surprise, constantly encourages the visitor to discover what is around the next bend. The impression it leaves is of a series of charming and intimate pictures. As the spectator advances he receives a succession of different views over the city moat and the overgrown inner fortifications. Alternatively, he may walk towards either of the two 'Divans,' which are small restaurants providing meals on terraces alongside the concert hall. The falling ground within the two divergent corners of the promenade has been utilized as amphitheatres, one for stage performances and the other for the concert hall. The flat *glacis* side of the garden, bounded on the side opposite the theatre by the broken façade of the bazaar, is flanked by tea pavilions. Outside the concert hall there was an open space, surrounded by railings, with a column in the middle; to the left of this there stood the circus, the merry-go-rounds, the switchbacks and so on, dispersed amid trees and shrubs.

In Carstensen's time all the buildings were made with a fine feeling for both commodity and delight. Everything was light, the passages left free, and all gaily painted. Yet there was propriety in the design; the main entrance was restrained in colour and was built in the late classical style, which also prevailed outside the establishment. The theatre just inside this conformed to the same style, but showed a somewhat more lively play of colours and was relieved by a light moorish arcade on each side of the proscenium. The more important buildings were of an open construction not often to be found in Northern latitudes, and some of them, like the railway merry-go-round, were entirely open, consisting of no more than a roof carried on pillars. Similar, also, were the bazaar and pavilion on the island surrounded by West Indian loggias, and halls like the concert hall and the divans were closed buildings only in the sense that slender columns served to support large glass surfaces divided by thin iron frames. All the buildings were slender and elegant in form and their minor details, borrowed from China, Turkey or Grenada, were carried out with a lightness of touch which was manifestly not inspired by any deep acquaintance with the prototypes, but served the requisite purpose of giving them an open lace-like form.

Naturally, since Tivoli was first laid out, many alterations have been made; but the zig-zag promenade has always dominated the plan and contributed much to its charm. The ground on the *glacis* side has been completely altered, and not for the better. The moat has contracted to a little lake, but the buildings on the side of the fortification remain almost as they were a hundred years ago and a few of them still retain something of their old attractiveness. The divans have been rebuilt and extended but are still open structures. Looking at them from the outside one sees the foreground partly covered with umbrellas and marquees; beyond that a glass roof on columns and, finally, a glass house, so that the only solid portion, which is the kitchen quarters at the back, almost disappears in the airiness of the whole. The concert hall, too, retains much of its old effect. By 1863 Stilling's concert hall had become far too small and a new octagonal glass building was erected to the design of Johan Andreas Stillmann, incorporating part of Stilling's old salon. In 1901-2 the architects Richard Bergmann and K. Arne-Petersen built the concert hall in Turkish style, as already men-



SWITCHBACK AND GARDEN *Above, the first switchback, 1843, by Stilling, with the first amusement park in the foreground; a tight-rope walk is about to take place. Right, a corner of Tivoli to-day, laid out as a garden.*

tioned, but the octagonal hall (which had undergone some alterations since 1863) was left, and has been applied to various purposes. During the war it was blown up by order of the Germans; but since then it has been rebuilt almost to the same design, and is now again in use for concerts when the large hall is not available.

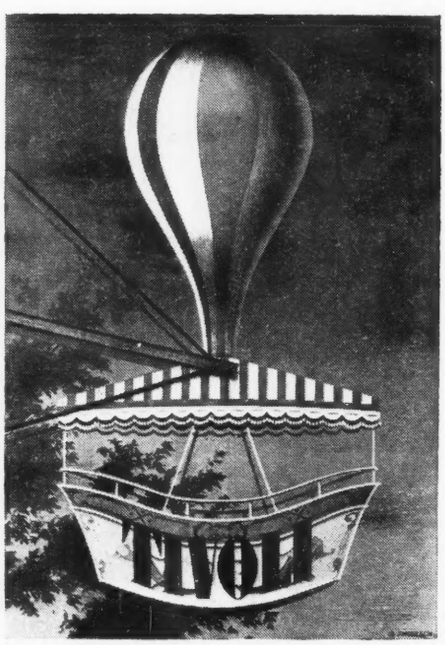
In 1862, the first bazaar was burnt down, and in the succeeding year a new one was erected on the site of the old, again to a design by Stilling. The first had really been a building in the Empire style and only its quite secondary features were Chinese. The second was more definitely a pastiche, this time Turkish in style, which in the following years was often followed in Tivoli (as for instance in the main entrance which stood from 1879 till 1889 and had been designed by Professor Vilhelm Dahlerup). This style was also used for the long concert hall by Bergmann and Arne-Petersen already mentioned and, finally, for the third bazaar, which was built in 1906 when most of the flat ground to the right of the promenade had to be rearranged in order to straighten the adjoining streets for the new railway station then being built. Stilling's second bazaar initiated the somewhat slavish imitation of foreign prototypes which was to become fashionable, but Stilling's second bazaar had character and verve in the interplay of its broad horizontal lines and the changing but predominantly vertical pattern of the divisions. Moreover, the building itself provided a beautiful and striking object for illumination.

Arne-Petersen's third bazaar was a considerably larger and very commonplace building. It is sited without any architectural relationship to the promenade, as are all the remaining installations which followed upon the straightening of streets for the railway station. In daylight it is impossible not to notice how planless this part of the garden is, but in the evening the effect is not so marked and the promenade, the most important feature in Tivoli, is not much affected by the new layout.

The last of Tivoli's important buildings, the theatre, is also now in its third embodiment. In this instance the latest is by far the most interesting. It is a pastiche of the old Chinese theatres designed by Professor Vilhelm Dahlerup and built in 1874, the same year that Dahlerup built the Royal Theatre of Copenhagen.

Tivoli Theatre is now called the Pantomime because it is used for performances which are a mixture of dumb acting and ballet. Originally it was used for variety performances such as weight-lifting, singing, dancing, acrobatics and, finally, for pantomime, which at that time was a natural popular amusement corresponding to the cinema of the present day. Since exceptionally fine pantomime performances were given in Tivoli these quickly became the only kind of performance there, and for most of the time that the garden has existed pantomime has been performed every evening in the season.

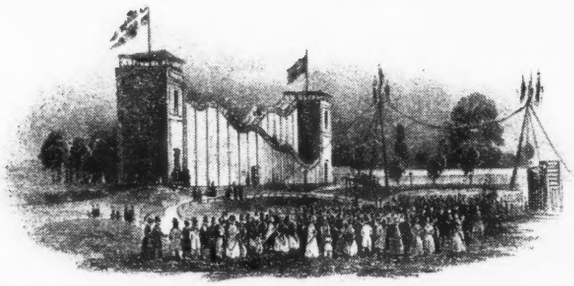
One of the daily performances is always a classical farce which can be traced right back to the Italian *commedia del'arte*. It is a remarkable fact that Tivoli's pantomimes are a traditional continuation, without any substantial break, of the pantomime form and cast which John Rich of the Lincoln's Inn Fields Theatre created about 1720 from the Italian comedies. Their whole historical antecedents are known. Mainbray from the Drury Lane Theatre brought this genre to Paris, whereby there was built up a continental school. One of the notabilities of this school, Casorti, lifted the classical pantomime to a high art in Denmark, and when he left the country his son remained to carry it further in collaboration with the family troupe of the Englishman James Price. Finally, the main actors in Tivoli's company worked with Price's troupe.



The parts of Pierrot and Harlequin are played in the characteristic Italian costumes, the chief female character is in classical ballet costume and the other females in clothes of John Rich's time. These picturesque performances could scarcely be given a finer frame than Dahlerup's festive theatre with its sudden silhouette effects. It was a stroke of genius to make the curtain in the form of a peacock whose tail folds up like a fan on either side after which its body and head sink down whilst the outer corners of the curtain slide away to the sides.

Several of Tivoli's buildings have since been carried out in the Chinese style, but only one of them, the tea pavilion which Arne-Petersen built by the lake in 1900, has turned out so well that it can be counted among the features which raise Tivoli above the level of most works of this kind.

In the old days, practically the whole of Tivoli was lit by gas. The outlines of the buildings and their most important details, the arcades over the promenades and a row of small pavilions along the edge of lake, shone in the dark like necklaces of coloured beads. Against the night burned open gas jets, flickering in the draught within their tulip-shaped glasses of dark green, gold and blue, each coloured spot of light twinkling like a star. Gas lighting survived as late as 1939 in the large Turkish concert hall. With this exception the lighting of Tivoli had already been converted to electricity, though some of the old tulip shades were retained. The lighting of the gas jets throughout Tivoli had been a lengthy and costly business, and the change was a welcome one for the management. What is most fortunate is that, in the conversion, the effect of a multitude of tiny lights, with single bulbs instead of fluorescent tubes or floodlights, was adhered to—with the result that the idyllic atmosphere of Tivoli has been preserved as a most necessary counterweight and antidote to the materialistic attitude of our times. For it is that which entitles Tivoli to its possession of one of the most important sites in Copenhagen.



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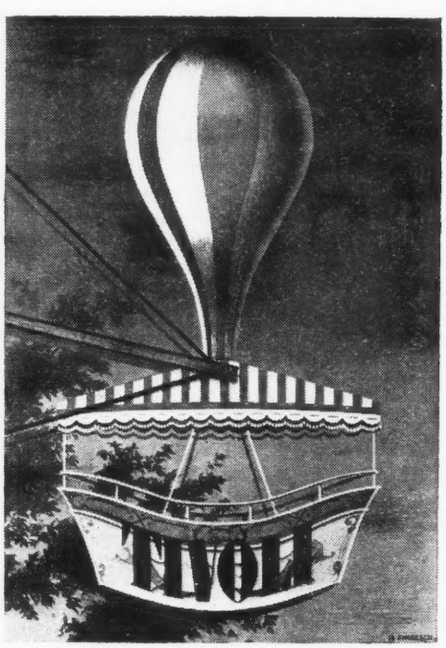

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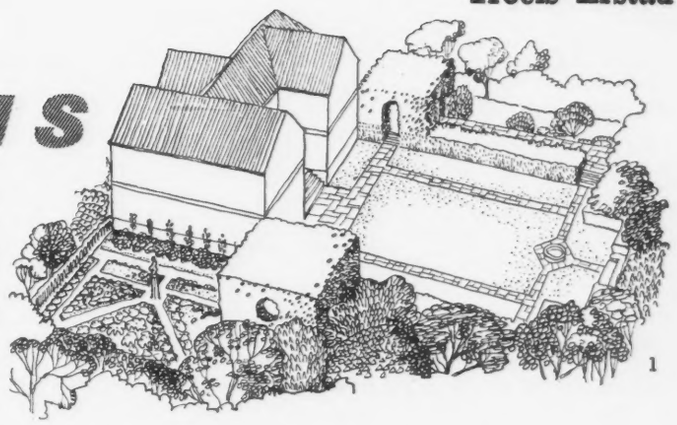
Troels Erstad

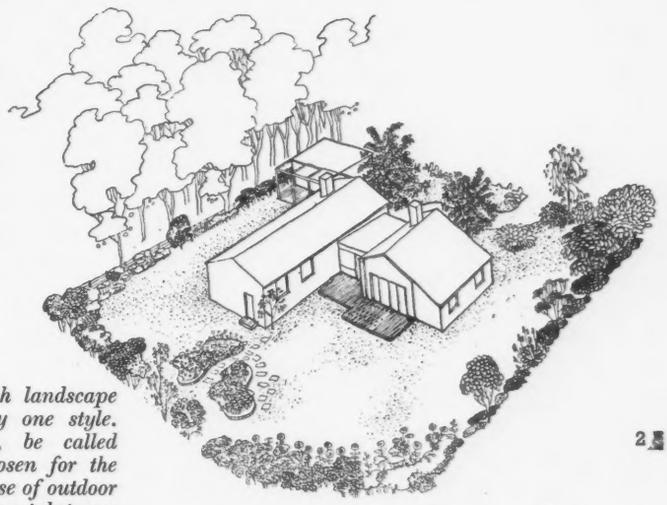
GARDENS



1

LANDSCAPE ARCHITECTS in Denmark work hand in hand with architects and have done so for several generations. To some extent this co-operation is due to the architectural profession itself, since architects often take the initiative in entrusting garden design to the expert. Less frequently, the owners themselves seek the help of landscape architects.

Inevitably, the developments which have taken place in architecture since the turn of the century, have been reflected in garden design. The Stockholm exhibition of 1930 arranged by the Swedish architect, Asplund, came as a revelation to all Scandinavian architects and the new conception of architecture it inspired quickly gained ground. Formerly neo-classicism had been championed, if somewhat one-sidedly, with great enthusiasm, but from that time the influence of the new ideas of simplicity and free planning determined by function led to a reaction

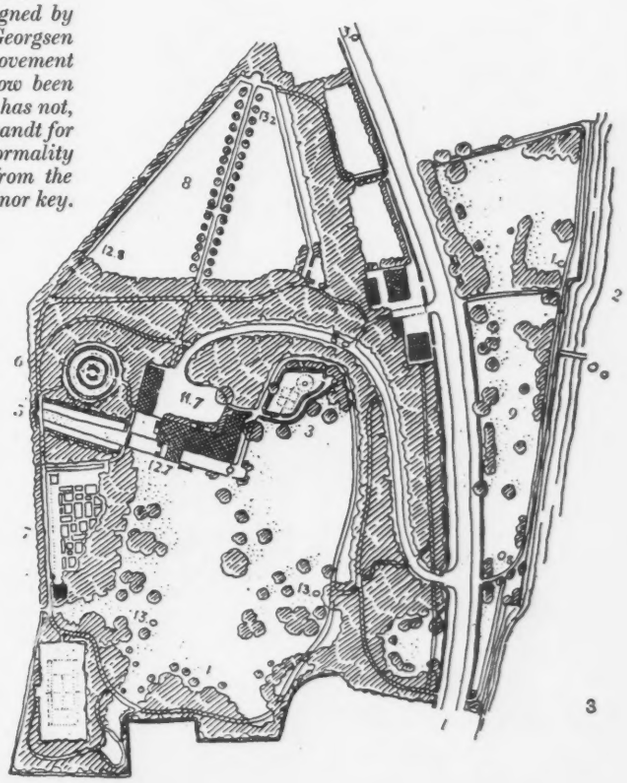


2

FORMAL AND INFORMAL *Modern Danish landscape architects do not show strict allegiance to any one style. Their approach might, without inaccuracy, be called empirical. An informal layout is usually chosen for the smaller garden. Functionally it makes the best use of outdoor living space, and æsthetically it provides contrast between the modern building and its background, and perambulating space for enjoying the harmonies of asymmetry from all angles.* 2 *is an example of this type of garden (designed by Troels Erstad for Finn Juhl).* 1 *is a garden by Georg Georgsen to a neo-classical house built before the modern movement came to Denmark. This type of axial layout has now been largely superseded. The formal garden in Denmark has not, however, entirely disappeared, as the plan by G. N. Brandt for a large garden,* 3, *shows. Here both formality and informality are combined, but the formal garden is sited away from the house and in relation to the whole is pitched in a minor key.*

against classicism. The effects of the new ideas were soon apparent in landscape design. Houses built in accordance with such different conceptions of architecture could not be placed in the same gardens. But while architects like le Corbusier might maintain that their buildings owed no debt to former styles the same could seldom be said of the gardens in which they pictured their houses.

The strictly symmetrical garden of geometrical design accorded well with the four-square balance of the classical house, but with free planning and asymmetry in house design, the garden as an extension of the façade with its formal, axial views, was



3

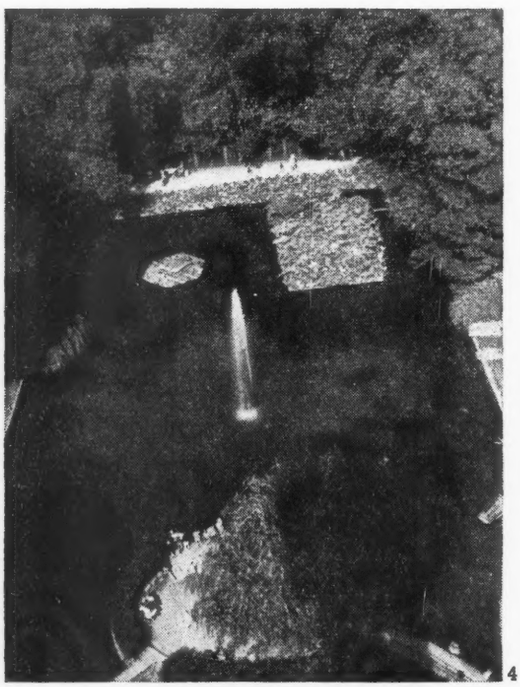
replaced by the informal garden, in which the house could be viewed from all angles. 'The great primary forms,' which was one of le Corbusier's dogmas, contrasted well with the luxuriant and apparently irregularly planned garden. A love of trees and a close understanding of their individual characteristics is held by all architects of our generation. With le Corbusier it almost acquires the character of a crusade, and it is fascinating to read his ideas on the great tower-like flat-blocks throwing into relief the contours of the ground, and their interrelation with the dinosaur-like world of huge and beautiful trees, illustrated in his sketches. People on the continent of Europe have never come to look upon grand and magnificent trees as a matter of course as the English have.

The eminent Danish landscape architect G. N. Brandt once defined the art of garden design in Denmark thus: 'For reasons of economy as well as æsthetics, modern architecture renounces the geometrically designed garden, and prefers a more natural layout with irregularly planted vegetation forming the background to the sharp lines and simple forms of the houses. The formal garden today in Denmark is generally limited to those cases where such a layout is demanded by function, e.g., sports clubs and recreation grounds, cemeteries, botanical gardens, etc.' However, situations must often arise where there are good reasons for combining both styles. With this in mind G. N. Brandt worked out a plan especially suited to large private gardens. It consists of a central landscaped space in direct connection with the house, supplemented by several formal gardens, which include flowers, pools and sculpture, situated farther away from the house.

The revived interest in the informal, landscaped garden in Denmark has not led to any slavish imitation of past styles, although a debt must be acknowledged to the more restrained phases of England's eighteenth century picturesque tradition. The ghosts of past enthusiasms are, fortunately, well and truly laid. To mention two, the exaggerated *Stimmungsschwärmerei* in which the Germans at the end of the eighteenth century especially excelled, with its temples, grottoes, ruins and huts, and the nineteenth century cult of tortuous curves for shrubbery clumps and garden paths, emphasized with stone, earthenware or brick edges or sharply trimmed verges, both of which were far removed from the original picturesque ideal.

Danish landscape architects have recently given much study to the problem of areas of transition in informal gardens, from lawn to shrubbery or flowerbed to path. Many kinds of plants are now used for covering the soil in the foreground of shrubberies, and certain plants such as *Cotula squalida* are even used to achieve the effect of a green carpet extending under the taller plants in flowerbeds. Where it is a question of creating an unpretentious frame around the house the Danish ideal is a garden with undulating grassy mounds and vegetation covering the naked soil everywhere, preventing abrupt transitions. On the other hand, where formality is called for, the avenue and vista, the circular grass space and water mirror, and other similar powerful effects are used, often with great originality.

The opportunities for Danish landscape architects have been greatly extended during the last decades. It is a common and accepted practice for landscape architects when designing the grounds around apartment houses to change the contours of the ground very considerably. And in addition to sports grounds and cemeteries which have for long come under the domain of the landscape architect, his advice is also frequently sought on the siting of buildings and on town-planning, and when engineering works such as roads and aerodromes are being undertaken both on the reformation of the ground as well as on planting.



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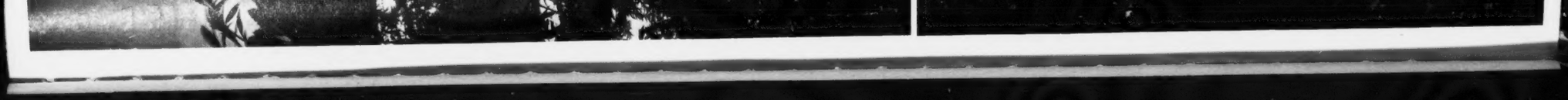
PUBLIC AND PRIVATE GARDENS *It is becoming the accepted practice in Denmark to employ landscape architects on all major landscape works, not only in the laying out of public gardens, but also on such things as the siting of main roads, the planting and reformation of the ground surrounding aerodromes and in the design of sports fields. The lake,* 4, *is in the Copenhagen Zoological Gardens. There is a fountain in the centre, and islands have been built out from the edges; the circular one in the foreground is connected to the main gardens by two bridges. The photograph was taken from the top of the observation tower. The formal walk in the Mariebjerg Cemetery, near Copenhagen,* 5, *was cut through an existing group of trees. These gardens, which surround the crematorium, were designed by G. N. Brandt.* 6 *and* 7, *on the facing page, show two gardens designed in direct relation to modern buildings.* 6, *a paved entrance court to a house by Fritz Schlegel, the garden is by G. N. Brandt, and the planting in this court is entirely composed of evergreens.* 7, *houses by Mogens Lassen in an existing park, by Troels Erstad*



GARDENS: Boundaries and Verges

8, a small, walled flower garden by G. N. Brandt; the paths are of brick with edges undefined. 9, Finn Juhl's garden by Troels Erstad; the raised flower-beds are bounded by brick walls, level with the surface of the beds. 10, cut grass walks bounded by flowers planted in long grass—a familiar device of Danish garden architects. 11, a stone path, in a garden by Enna Friis, linked to a perennial border by *Cotula squalida*, a plant which creeps among the plants as well as between the stones. 12, a green fence surrounding a tennis court, in a garden by C. T. Sorensen. 13, a 'vergeless,' circular 'water mirror' in a garden by Troels Erstad. 14, brick walk, fountains and flower-beds in part of the Tivoli gardens. 15, garden with sunk lawn and brick paths, by C. T. Sorensen, in a house near Copenhagen.

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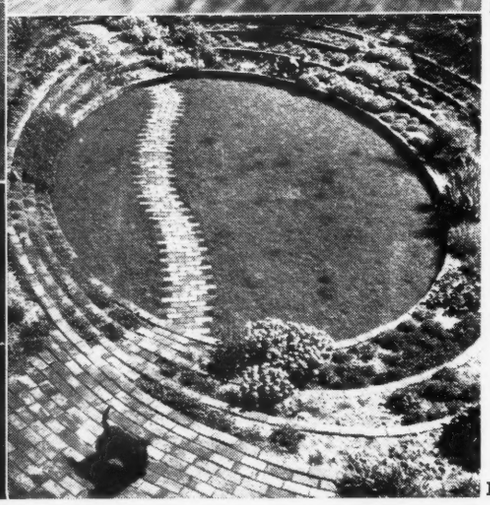


15

FURNITURE BY KAARE KLINT

1, *furniture designed in 1915 by Professor Kaare Klint for a museum.*

1

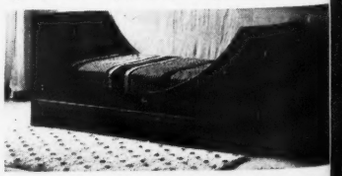
2, *a sideboard designed to hold a complete service for twelve people.*

2

3, *a chair, also by Kaare Klint, which is based on a model by Chippendale.*

3

4, *a bed which shows little of the traditional influence which has inspired other furniture by Kaare Klint.*



4

Furniture

E. Kindt-Larsen

IT IS WITH some hesitation that I venture to deal with the subject of modern Danish furniture design, partly because I am personally interested, being a practising furniture designer. I am, therefore, afraid of being biased in my treatment of the subject. Also, in such a short survey, I shall have to confine myself to the mention of only a few of our most representative furniture designers, regardless of the fact that many of those who are not mentioned here have contributed to the present high standard of the country's furniture design.

The character of contemporary Danish furniture is modest. There are no particularly remarkable features about it unless one counts an extreme simplicity—a harmony of form arising directly from strict conformity to functional demands. For those who make a special study of furniture there will be several points of interest in detailing, construction, jointing and so forth; for these are, as a rule, designed with a sure feeling for the nature of the material, and with a characteristically Danish refinement.

In this century the first furniture to exhibit these qualities was that designed by Mr. (now Professor) Kaare Klint, in 1915, for a small provincial museum (1). This furniture is still influenced to a certain extent by period styles, but it nevertheless shows great originality. The accompanying illustrations are representative of Professor Klint's work. His sideboard (2) is important as a prototype of rationally designed furniture. In this connection its arrangement is of special interest. On each side a series of flat trays is provided for plates, cups, saucers, knives, forks, etc., the size and shape of each tray being carefully calculated to hold a complete service for twelve people without any waste of space.

This precise method of designing furniture is now considered a matter of course, but it was not always so, and, as far as I know, it has seldom been done any better than in this sideboard. Chinese furniture and English furniture (especially of the period which has become associated with the name of Chippendale), have always been a source of inspiration to Professor Klint. At the furniture school of the Academy of Fine Arts, where he teaches, his students are encouraged to base their designs on models of the past, specially chosen for their simplicity and fitness for purpose. His belief is that the functional requirements of furniture have not changed radically, and that, stripped of ornament, the best models of the past are also the best models for contemporary furniture designers. His chair (3) is a good illustration of the theory. The legs are based on the model of a Chippendale chair, as is the back, although the latter has been subjected to a greater process of simplification. Some of Professor Klint's work, however, such as the bed in 4 (a design particularly characteristic of him) shows little trace of traditional influences.

A large number of Danish furniture designers have followed the Klint principles, basing their designs on examples from the past. But there are other furniture designers who have broken with tradition in the belief that the experimental approach to furniture design expresses more clearly the spirit of our times than the approach which looks for inspiration to the models of the past. Mr. Mogens Koch (5) and Miss Rigmor Andersen (6) have both been associated with Professor Klint and have, with great skill, carried on the Klint principles in furniture design.

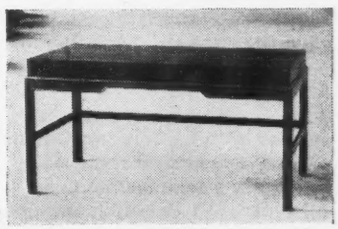
5

6

5, chair and table by Mogens Koch. 6, a tallboy by Rigmor Andersen. Both designers have, in the past, worked in association with Kaare Klint.

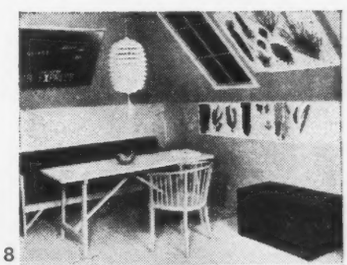
Mr. Ole Wanscher looks also largely to models from the past for inspiration. His sense of the importance of detail is apparent in the writing desk (7) in which the projecting moulding round the top of the weight-carrying frame heightens the contrast between it and the purely box-like table-top and drawers.

Mr. Borge Mogensen, originally a pupil of Professor Klint's, although strongly influenced by him has developed a freer style than any of the previously mentioned designers. His scheme for a young man's room (8) shows his sense of simple construction and his ability to create an exquisite interior inexpensively. The sofa (9), the sides of which are adjustable, is a typical example of Mr. Mogensen's light but sure touch.



7

7, a writing desk in two kinds of wood, with an independent structural frame, by Ole Wanscher.



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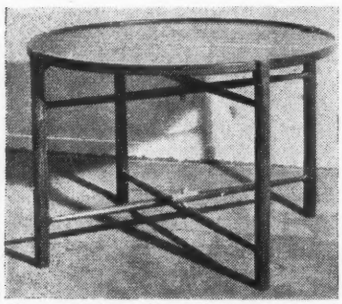
9

8, scheme for a young man's room by Borge Mogensen, a pupil of Kaare Klint's. 9, a sofa with adjustable sides, by the same designer.

While the designers hitherto mentioned are architects, Mr. Jacob Kjaer is a cabinet-maker and, as such, one of our best. He designs a great deal of his furniture himself, and most of his work is strongly influenced by tradition. One of his best designs

is a round table (10) with a loose top and collapsible frame.

Mr. Peder Moos, also a very

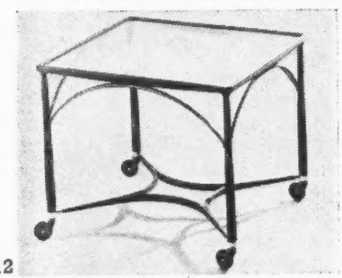


10. *a circular table with loose top and collapsible frame, by a cabinet-maker, Jacob Kjaer.*

able cabinet-maker, who designs everything he produces, is particularly to be noted for his attention to construction. By means of minutely executed, often very intricate carpentry, he has achieved an outstandingly graceful style. It may almost be said to be a principle with him to use always the minimum of material. The small table (11) is an example. The detail of one of his chairs in 18 shows a typical joint between legs and seat frame.

11, *a table by another cabinet-maker, Peder Moos, whose minute attention to detail is illustrated in the joint between leg and seat of one of his chairs, in 18, on the facing page.*

One of Mr. Moos' colleagues, Mr. Willy Beck, made the glass-topped trolley (12) after a design by Moos, and, in the present author's opinion, it represents the peak of good craftsmanship. Apart from the glass top, all the parts are made of wood, even the wheels and their bearings. The



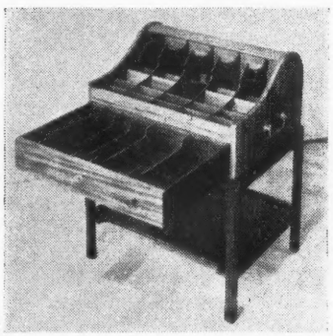
12, *a glass-topped trolley made by Willy Beck, after a design by Peder Moos. Except for the glass top, all the parts are of wood.*

curved supports are glued together by very thin wooden mouldings. In spite of its exceptional lightness the trolley is extremely stable.

Mr. Finn Juhl also employs the experimental approach but, where Mr. Moos concentrates his attention chiefly on construction, Mr. Finn Juhl concentrates his on form, and only secondarily on construction. His approach is almost that of a sculptor, and his designs are particularly interesting for their strikingly individual shapes. The detail in 19 is a good example; it is the arm of the chair shown in 13.

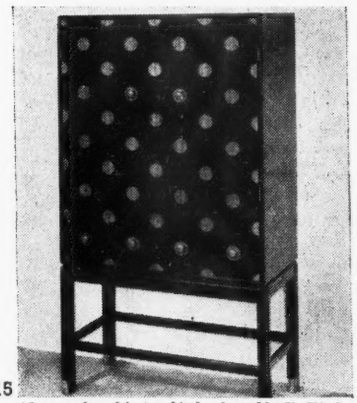
13, *a chair by Finn Juhl. A detail of it in 19, on the facing page, clearly shows this architect's 'sculptural' approach to furniture design.*

Mr. Hans J. Wegner was originally a cabinet-maker and all his work, even the most daring, shows a sure feeling for construction. His sewing table (14) has a roller-top which is connected



14, *a sewing table with a roller top which opens simultaneously with the drawer, by Hans Wegner.*

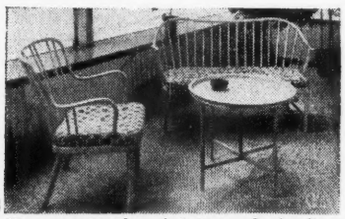
with the drawer so that the roller opens when the drawer is pulled out. The cupboard (15) is a design of my own, in collaboration with my wife. The apparently intricate inlaid work in the cupboard—the light spots—are in fact achieved quite simply, the spots being cut out of the light veneer with the same chisel with which the holes are made for the spots in the dark wood.



15, *a cupboard in two kinds of wood by E. Kindt-Larsen, designed in collaboration with his wife.*

All the furniture described above is hand-made. The factories did not start the production of good, modern furniture until quite recently.

A few firms such as Messrs. Frits Hansen were the pioneers. From this firm a number of good designs have come (16).



16, *some examples of factory-made furniture produced by Messrs. Frits Hansen.*

About ten years ago the Co-operative Wholesale Society of Denmark started the production of good modern utility furniture. Mr. Borge Mogensen was engaged as chief of the furniture department. A chair by him is shown

17, *utility furniture by Borge Mogensen for the Co-operative Wholesale Society of Denmark*

in 17. One of the latest developments in Danish furniture design is the demountable, Portex furniture, produced to the designs of Messrs. O. Molgaard Nielsen and Peter Hvidt (20).

18, *chair by Peder Moos.*

18

19, *chair by Finn Juhl.*

19

20, *Portex furniture in a room designed by O. Molgaard Nielsen and Peter Hvidt.*

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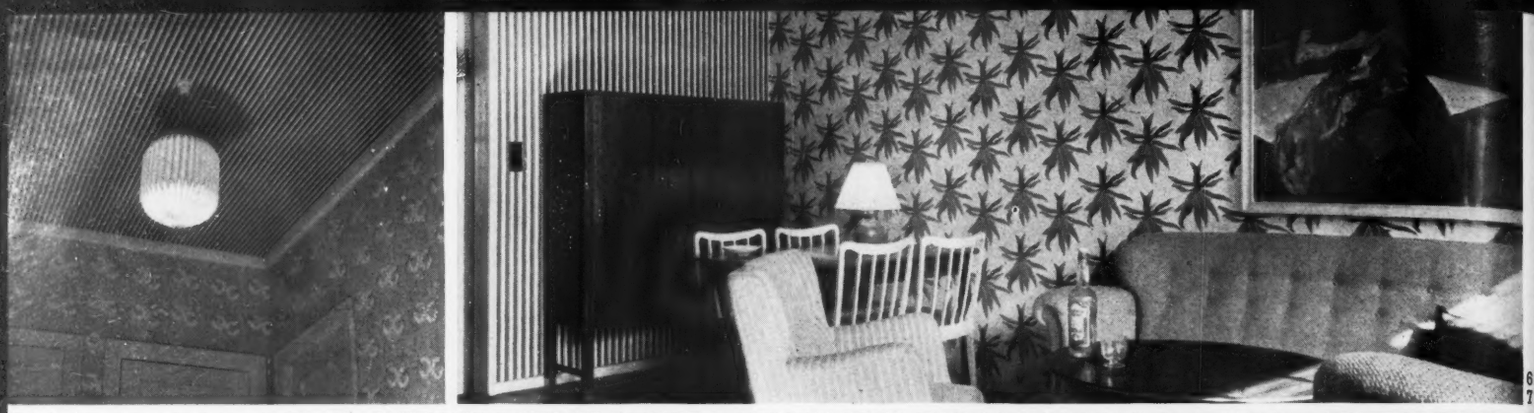
WALLPAPERS **1, a large-scale pattern of flowers and foliage by Arne Jacobsen, manufactured by Ernst Dahl. 2, a 'netting' pattern, one of the winning designs in a 1930 wallpaper competition, by Frode Jorgensen, manufactured by Danske Tapetfabrikker. 3, a design by Ruth Vedde Hull, manufactured by C. Krügers Tapetudsolg. 4, a variant of the netting pattern in 2. 5, a design by Bent Karlby, manufactured by Ernst Dahl.**



WALLPAPERS **6, striped wallpaper used as ceiling decoration. 7, two contrasting wallpapers in the dining-living room of a Copenhagen flat. 8 and 9, various wallpapers chosen to emphasize certain spatial characteristics, in the two storey high living room of a Copenhagen house.**

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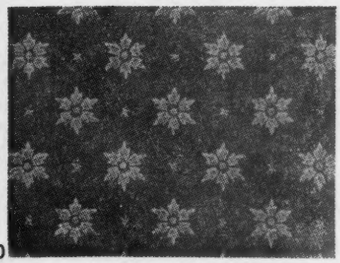
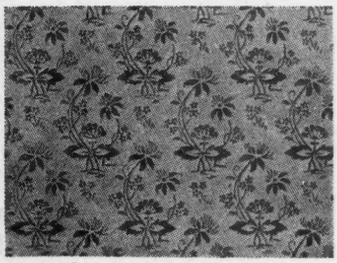
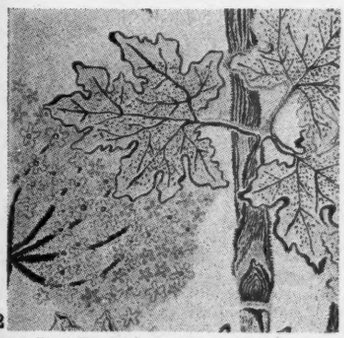


10, *one of the standard designs from a Danish wallpaper manufacturer's stock, which was extensively used in the thirties.*



11, *another standard design, which was also popular in the thirties. Both this and* 10 *were by Danske Tapetfabrikker.*



12, *Bent Karlby's 'bamboo pattern' paper, one of the winning designs in a competition which was held in* 1930. *The manufacturer is Danske Tapetfabrikker.*

THE PRODUCTION OF wallpaper on a large scale started quite late in the nineteenth century in Denmark and the main influence came from Germany. This was not surprising in view of the tremendous increase in German production in the latter half of the century. In the first half of the century some of the finest wallpapers were produced by the French factories of Jean Zuber and of Dufour and Leroy, but from 1850 to 1900 German production increased from 1½ to 60 million rolls, whilst France in 1900 produced only 18 million rolls. Over the same period the price of German paper fell from 1.20 to 0.42 Reichsmarks. The Danes obtained most of their machinery and equipment, and also many craftsmen, from Germany; inevitably the designs employed were principally of German origin.

The works of Morris and Crane in England, however, were beginning to be felt and to influence design on the Continent through the Jugend style and Art Nouveau. The Kruger factory in Denmark produced designs in 1901 by Bindesbøll, Bertha Dorph and Th. Deleuran which were influenced by the new movement, but the majority of work suffered from severe German competition and the æsthetic standard remained at a low level. Consequently there was little time to be spent on experiments in design or technique, but a number of reproductions of good early designs were made by Chr. Jacobsen at the beginning of the first World War.

In 1920 well-known contemporary artists including Stenild Larsen, Viggo Henriksen and Biilmann - Petersen produced good designs for the factory 'Denmark.' In 1930, when the modern movement was afoot, there were still very few designs from which to choose. It was at the time when the soft pastel shades of distemper were giving way to the hot coloured and deliberately contrasted painted walls that enjoyed a limited popularity after the return of the enthusiasts from their first visit to Paris. To the Danes the development of wallpapers appeared to be a more promising medium. The few good designs included one or two expensive Viennese papers and cheap and simple designs from normal stocks. These came to be used extensively (10 and 11) in the new houses springing up at Gentofte outside Copenhagen. About the same time Corbusier designed a number of wallpapers for a Swiss firm, principally of the dotted types and all of a high standard.

The first of the competitions was held in the same year and from it came the 'netting' pattern by Frode Jørgensen (2, on page 251) and Bent Karlby's 'Bamboo' pattern (12). These two completely different types each have a different quality and function. The former, a 'texture' pattern, consisted of an allover design which was small in scale and provided, to a greater or lesser degree, a neutral background to furniture and pictures. Also in this type can be included dotted patterns and the striped group, together with that by Jørgensen already mentioned. These have been used extensively in houses and public buildings of all kinds.

The other type consists of a large pattern unit and is usually a floral motif. Its influence upon an interior is invariably strong and dominating and, on the whole, rather difficult to employ successfully, although generally used only on one blank wall. Many of the designs tend to be uncompromising and to contribute rather too much of their own character to the room.

Some of the most successful interiors relied upon the combination of both types, expressing the spatial theories of the modern movement. The large patterns were sometimes used on one unbroken wall or in recesses, and the remaining walls were finished with paint, distemper, or an appropriate small scaled textured paper. Arne Jacobsen's design of woodland flowers was probably the culminating point in the development of the large floral pattern (1, on page 251).

Alternative colour arrangements are available for many designs. Some tend to be so fine and fragile that their sensitive lines are lost in the reproduction, and there is a tendency to coarseness. There is also a tendency for some large designs which are more elaborate to leave the normal scope of wallpaper and to approach the function of a mural painting. Arne Jacobsen's design just mentioned is an example.

The striped designs have of course been manufactured in many countries, including England, but their application in Denmark has been more daring and often strikingly successful on vertical wall surfaces or on ceilings (6, on the facing page). Good examples from 1944 are those of Malene and Acton Bjørn, and, in 1945, a design in red, blue and white by the young artist Poul Høyrup. The simpler straightforward striped patterns are easier to use and correspondingly more popular.

Of the more recent Danish designs two have received awards in a competition held recently in the United States at the Museum of Modern Art; one is by Bent Karlby (5, on page 251) and the

posters **On this and the facing page are four posters from the large number, of a very high standard of design, which have been produced in Denmark. 1, on the facing page, was designed by Aage Rasmussen for the Danish Tourist Bureau. 2, by Sikker Hansen, was designed for the F.D.B. cigar and cigarette factory at Esbjerg. 3, was designed by T. Andersen to commemorate the twenty-fifth anniversary of civil aviation in Denmark. 4, on this page, is a Danish Airlines poster by I. B. Andersen. The poster on page 244, advertising the Tivoli gardens, is by I. B. Andersen.**

4

other by Mette Wagner and Poul Danø.

Competitions held in Scandinavia have proved very popular, as many as 700 entries being received, mainly from architects.

One or two recent designs may have been influenced by the early nineteenth century French landscape wallpapers of the Jean Zuber and the Dufour Leroy factories. An example is the Swedish/Danish design of a fishing scene originated by Bent Karlby and others. The French landscape papers sometimes took years to prepare, and it was hardly surprising that it was sometimes possible to produce only two a year. With new technical methods landscape or pictorial wallpapers may, quite possibly, be revived.

The use of the new papers has called for great care and discretion in the handling of colour, pattern and shape in relation to space. In the house at Copenhagen (8 and 9, page 252) careful attention has been paid to emphasizing the spatial characteristics of the room. This is the important Scandinavian contribution to the use of wallpapers which has been rather lost sight of elsewhere.

The use of wallpapers in this way need not be confined to domestic interiors; they can be employed very successfully in public buildings where there are opportunities for larger spatial effects, and a greater richness. In England this has been quite neglected, but there is no reason why public and institutional buildings should always be finished in distemper, paint, tiles or bricks. The obvious criticism that wallpaper is not a hardwearing surface is true enough, and applies particularly to a hospital ward and ancillary rooms. But there are some rooms, perhaps the ward sister's room, a patients' rest room, or the doctors' consulting rooms, which would gain tremendously by being humanized and separated from the institutional atmosphere. An example where this has been applied is a small new hospital at Holbaek by the architect Groth-Hansen. A number of suitable rooms have been papered with the textured or flowered designs, and the extensive wall surface to the main staircase landing has been papered with a large floral design which runs from the ground to the third floor and is strikingly effective, accentuating the scale of the stairs up through the building and giving a note of cheerfulness to patients, visitors and staff.

H. J. Hitch

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THE ARCHITECTURAL REVIEW

The Architectural Review Special Danish Number

AUTHORS PREBEN HANSEN. Born 1908. Author of *Huse i Danmark* (Houses in Denmark). Work includes private houses; tobacco factory at Aalborg; industrial buildings, an electric plant, and flats in Copenhagen. KAY FISKER. Born 1893. His work includes: railway stations at Bornholm, 1916; bank building at Rønne, 1923; Aarhus University, 1931; hospitals, sanatoria, asylums, 1932–1938; M/SS *Hammershus* and *Kronprins Olav*, 1936–7. Works since 1939 include Copenhagen Slum Clearance; flats; schools; motor vessels. Publications include: *Københavnske Boligtyper* (Copenhagen Flat Types), 1936; *Modern Danish Architecture*, 1928; *Terrace Houses*, 1944. Editor of *Arkitekten*, 1918–1926. G. ANTHONY ATKINSON. Born 1915. Educated Radley and Bartlett School of Architecture. B.A.(Arch.)Hons., A.R.I.B.A. Since 1947 on staff Building Research Station, recently appointed Colonial Liaison Officer. Has made a special study of the history of building. GUNNAR BIILMANN PETERSEN. Born 1897. Contributor to *Arkitekten* and *Politiken* since 1921. Has designed houses, factories, restaurants. Industrial design includes vehicle bodies, banknotes, posters, lettering for memorial columns and the Royal Sarcophagi (Roskilde Cathedral). TROELS ERSTAD. President of Danish Institute of Landscape Architects. Editor *Havekunst*, 1940–1946. Has designed public parks, private gardens, and grounds for blocks of flats. EDVARD KINDT-LARSEN. Since 1945 Principal of Craftsmen's School. Now engaged in the design of furniture and silverware. H. JOHN HITCH. Born 1915. Educated at Eltham College and Polytechnic School of Architecture, London. A.R.I.B.A. 1938. R.A.F. 1940–1945 (staff and camouflage construction). With Icelandic architect Thor Sandholt designed a school in Reykjavik. Now working with Queensland State Government.

ARCHITECTS C. F. MØLLER. Born 1898. His work includes (with Kay Fisker) a number of apartment houses; the municipal hospital, Aarhus; sanatorium at Vordingborg; hospitals at Vodskov, and Mariager; University of Aarhus, and a bank in Aarhus. POUL HOLSØE. Born 1873. As city architect of Copenhagen was responsible for the design of hospitals, schools, and houses for old age pensioners. As a private architect his work includes (with the late Jesper Tvede) the garden city of Grøndalsvaenge in Copenhagen, and many small houses. VILHELM LAURITZEN. Born 1894. His work includes Nørrebro Theatre; the Town Hall, Stadium and School at Gladsaxe; Copenhagen Airport; Copenhagen Radio Building and private houses. HANS HANSEN. Born 1899. His work includes private houses, housing estates, and factory buildings. FLEMMING LASSEN. Born 1902. His work includes the Municipal Library at Nyborg (with Erik Møller); the Town Hall at Søllerød (with Arne Jacobsen); and private houses. He has also designed furniture, silverware and rugs. ARNE JACOBSEN. Born 1902. His work includes buildings and development at Bellevue; the Town Hall at Aarhus (with Erik Møller); the Tennis Hall at Hellerup; the Town Hall at Søllerød (with Flemming Lassen); the stadium at Gentofte; and a number of houses. ORLA BOYER. His chief work has been decoration and shop design. Has redesigned several restaurants and bars. EDVARD THOMSEN. Born 1884. Director of Royal Danish Academy of Fine Arts from 1946. His work includes schools at Gentofte, Husum (with Frits Schlegel) and Øregaard; kindergarten at Utterslev; stadium at Odense (with Vagn Kyed), and apartment houses. VAGN KYED. Born 1903. His work includes houses; flats; crematorium at Odense; flats for old age pensioners; and (with Edvard Thomsen) the stadium at Odense. ESKE KRISTENSEN. Born 1905. His work includes houses; shops, factories and (with Kay Fisker and C. F. Møller) a number of flats. J. JUUL MØLLER. Born 1910. Has designed shops in Copenhagen. KAI AGERTOFT. Born 1899. Worked as supervising architect for Frits Schlegel. His work includes a number of private houses. A. GRAVESEN. Born 1913. Worked in association with Frits Schlegel. Has designed a number of houses. MAGNUS STEPHENSEN. Born 1903. His work includes private houses and flats (designed with Knud Thorball), terrace and apartment houses for the City of Copenhagen. VIGGO MØLLER-JENSEN. Born 1907. His work includes houses; a restaurant at Holbaek; flats at Copenhagen and terrace houses for artists at Utterslev. FRITS SCHLEGEL. Born 1896. His work includes Zoo buildings at Copenhagen; Mariebjerg crematorium at Gentofte; the Public Trustee Office at Copenhagen; private houses; and (with Edvard Thomsen) the Søndermark crematorium at Frederiksberg. ERIK MØLLER. Born 1909. His work includes the Town Hall at Aarhus (with Arne Jacobsen); the municipal library at Nyborg (with Flemming Lassen); the Church of the Advent at Copenhagen; houses and furniture. STEEN EILER RASMUSSEN. Born 1898. Editor of *Arkitekten*, 1927–1933. His work includes the Town Hall and his own house at Rungstedt, and books on *British Applied Art; Nordische Baukunst* and *London*. ERHARD LORENZ. Born 1913. His work includes private houses, and he is well known as an industrial artist. KNUD HANSEN. Born 1898. His work is mainly concerned with domestic building. MOGENS LASSEN. Born 1901. His designs include private houses, shops, flats, and furniture. HUBERT PAULSEN. Born 1902. He has been mainly concerned with the design of blocks of flats. HOUMØLLER KLEMMENSEN. Born 1902. Has designed houses; flats; shops and furniture. POVL BAUMANN. Born 1878. Has designed a great number of private houses and flats, and has played a dominant part in the development of flat building in the period 1920–1940.

ARTISTS The map of Denmark on page 209 is by D. Dewar-Mills. The line drawings on pages 215–218 and 223 are by Preben Hansen. Drawings 1 and 2 on page 245 are by Frank Weemys.

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ANTHOLOGY

Damp Napkins but Good Beer

The inns in Denmark are of a more primitive character than those in the provincial towns of England. The best hotels of Copenhagen, however, make greater pretensions, and, though not yet equal to the best inns in West and Central Europe, will satisfy most travellers. The proprietors, or at any rate some of the servants, speak English; guides and every necessary information are easily obtained. English is also spoken in some of the shops at Copenhagen. The hotels are fairly clean . . . damp sheets are not uncommon, and damp napkins are the rule rather than the exception. The plates are invariably cold. The usual dinner hour is 1 p.m. in the smaller towns, and 4 p.m. in Copenhagen. When dinner is at 1 o'clock, there is supper at 7 p.m., consisting usually of one hot dish and a multitude of cold viands. Smoked salmon is excellent. The beer is good, the wines bad and expensive. The most absurd names are given to wines, without rhyme or reason. The commonest *vin ordinaire* is labelled *Margaux*, and the vilest Niersteiner, *Johannisberg*. White port wine is a remarkable compound. Capital cherry cordial is made in Copenhagen by Heering, and may be had at the best grocers' shops.

Avoid taking English servants to Scandinavia, and particularly women, as they would prove a far greater trouble than comfort.

Few, if any, of the regular couriers speak Danish or Swedish, and would therefore be also useless. But at Copenhagen, Gothenburg, Stockholm and Christiania there are men who speak English, and have been much accustomed to travel with gentlemen, chiefly upon sporting expeditions in Norway and Sweden. These persons drive well, prepare the Forbud papers, cook, and are particularly useful. They are paid about 4s. 6d. a day, besides their lodging and travelling expenses. It is advisable to have a written agreement with these men before starting, and in case of not returning to the place where they were engaged, it is well to make a particular arrangement about their return.

All articles of luggage should be waterproof, and the total weight of each person's baggage should not exceed 50 lbs. All beyond that must be paid for by those who travel by railways abroad, and other public conveyances, except steamers.

Clothes—two suits are sufficient; a new and strong one, all of woollen material, for everyday use, and another for towns, with a waterproof overcoat. The socks or stockings should be worsted, as cotton soon blisters the feet in walking. Shoes or boots should be double-soled and well-nailed for everyday use.

For Ladies—the travelling dress should be of strong fabric, Scotch spun-silk, or some very light woollen material. Stout boots and a pair of goloshes for wet decks are useful. For wraps, the best are a Scotch plaid, of the largest and coarsest sort. A jacket of sealskin or cloth, and wadded; and a large cloak with sleeves and cape.

A Handbook for Travellers in Denmark
(published in 1893 by John Murray)

MARGINALIA

Eric Ravilious

In the Arts Council's galleries in St. James's Square, London, there is a memorial exhibition of the work of Eric Ravilious—painter, wood-engraver and designer—who was killed in 1942 while serving with the Royal Marines as a war artist. Though he was one of the pioneers of the revival of wood-engraving in England twenty years ago and had a special place as a water-colour painter who combined a poetic sensibility with a capacity to record topographical character, he was known to the public chiefly as a designer. The pottery he decorated for Wedgwood had a deserved success because in it he managed to evolve a style that was fresh and clearly of our time, but yet was traditional without being too reminiscent and personal without being whimsical. He also designed one very elegant suite of furniture, from which a table and two chairs are on show at the exhibition. Only four sets of this furniture were made. One was destroyed during the war in an air-raid, one has gone to America, one is in private ownership in England and the fourth has lately been acquired by the Victoria and Albert Museum.

Chiswick House Saved

Lord Burlington's villa at Chiswick, the fate of which has so long been in the balance, has been saved for posterity. The Ministry of Works has accepted it under the Ancient Monuments Acts as a gift from the Middlesex County Council and the Brentford and Chiswick Borough Councils, who are respectively the owners and lessees. The gift includes the temples, statuary and buildings in the grounds, but the gardens, which extend to 66 acres, will continue to be maintained by the two Councils.

Damage to the house itself, which has had no considerable repairs since 1941, is so extensive that it will be a long time before it can be opened to the public. The damage to the garden buildings and ornaments, which for some years served as cockshies for the local children, is also considerable, as the photographs reproduced in *Marginalia*, December, 1946, showed.

The Middlesex County Council bought the estate from the Duke of Devonshire in 1928.

Architect for London Airport

The Ministry of Civil Aviation has appointed Frederick Gibberd consulting architect for the construction of the interim Terminal Buildings which are to be erected on the north-eastern face of the diamond-shaped central area of London Airport.

Work will start on these buildings at the end of this year, and it is planned to bring them into use by 1951, in time for the Festival of Britain. They will replace the existing temporary passenger handling buildings alongside the Bath Road, and will be of semi-permanent unit construction, two or three storeys high. They are expected to remain in use until the final portion of the permanent Terminal Buildings is erected.

RÉSUMÉS

November 1948

Page 211: *Land og landskab af Preben Hansen.* Danmark har kun een landegraense, mod syd, og landets kystlinie forlaenges af utallige bugter og fjorde. Selve landets konturer har ikke undergaaet nogen forandring siden istidens gletsjere formede dem. Klimaet er mildt, hvilket hovedsageligt skyldes vestenvinden, og det er denne vind, som har vaeret afgorende for husenes beliggenhed, hvis laengdemeridian i reglen er ost-vest. Trae var det forst brugte byggemateriale, men i det 12. aarhundrede indfortes teglstenen, og teglsten er det karakteristiske materiale den dag i dag. Det danske landskabsareal er ikke stort, men hver tomme jord er blevet udnyttet.

Page 219: *Boligarkitektur i Danmark af Kay Fisker.* Inden den store brand i 1728 var bebyggelsen i København hovedsagelig bindingsvaerkshuse. Efter branden indforte bygmesteren *Johannes Cornelius Krieger* en ny type gavlhuse i barok stil og paa 3 etager, som omkring midten af aarhundredet aflostes af en mere ensartet klassisk hustype, der skyldtes Nikolaj Eigtved, Kong Frederik den Femtes arkitekt. I 1795 udbrod en ny stor brand, men den storste ulykke i Københavns historie var krigen mod England i begyndelsen af det 19. aarhundrede. Forst i 1830erne begyndte leveforholdene at bedres. Den forste byggelov blev vedtaget i 1856.

I Københavns forstaeder kan skelnes mellem tre slags villabebyggelse: rodstenshuset med saddeltag som blev populariseret for en snes aar siden af Akademisk Arkitektforenings Tegnehjaelp og Nationalforeningen for Bedre Byggeskik, dernaest en hustype med udhaengende tag, ofte uregelmaessig i byggestilen inspireret af *G. M. Bindesbolls* senere arbejder fra forrige aarhundrede, og endelig den af kubismen praegede villa med fladt tag. I det 19 aarhundrede haemmedes beboelseslejlighedens udvikling, fordi den gammeldags tovaerelses lejlighed nod en langvarig popularitet, og fordi der var tradition for, at alle opholdsstuer skulde vende ud mod gaden og køkken etc. ud til gaarden. Der er imidlertid sket store fremskridt, og det synes, som om de saakaldte taarnhuse paa 12-14 etager, som allerede er almindelige i Sverige, vil blive en populaer type.

Page 227: *Teknik, studier og praksis af G. Anthony Atkinson.* De almindeligt anvendte byggematerialer er mursten og vingetegl. Brugen af vingetegl kraever faktisk enkle og dristige tagkonstruktioner, og dette har bidraget til den ydre stilrenhed i danske bygningsvaerker.

Paa Akademiet i København kan man komme ind paa to maader: via gymnasiet eller via en teknisk skole i forbindelse med ansaettelse som laerling i et haandvaerk. De der kommer ind via gymnasiet maa tilbringe et halvt aar paa en byggeplads, saaledes at alle arkitektstuderende faar nogen praktisk erfaring i byggebranchen. Den mest almindelige form, under hvilken arkitekter nedsaetter sig, er det private firma, der taeller to kompagnoner og et lille antal medhjaelpere. Ingeniorer og arkitekter har et naert samarbejde, men praktiserer naesten altid hver for sig. Der er kun faa entreprenorer, og som regel bestemmer de tre erhverv hver for sig det arbejde, de vil paatage sig og prisen derfor.

Page 239: *En midlertidig byplan for København.* København er i sin struktur en centraliseret by af den almindelige kontinental-europaeiske art, med et befolkningstal paa 1,100,000. De nye byplanforslag regner med et endeligt befolkningstal paa 1,500,000, med et mellemstadium hvor tallet vil vaere 1,300,000. De forudser bygningen af et antal elektriske jernbaner, der naar helt ud til det omliggende land, og regner med at bebyggelsen vil folge disse jernbaner i stedet for som nu at vokse koncentrisk ud fra byen. Fremtidens storste ekspansion skal dirigeres mod vest, hvor sletterne og kysten skal gøres mere tiltraekkende ved skovplantager og ved at forbedre mulighederne for badning. Et nyt lovforslag, som i aar er forelagt rigsdagen, vil, hvis det bliver vedtaget, bemyndige en i hoj grad tiltraengt fredning af visse arealer.

Page 241: *Tivoli af G. Biilmann Petersen.* Tivoli er kendt af enhver, der har vaeret i København som turist. Hvor paradoksalt det end kan lyde, saa skyldes Tivolis eksistens den omstaendighed, at det ligger midt i byen, hvor de korte byggekontrakter var til hinder for byggeriets udvikling. Tivoli blev aabnet i 1843 som en forlystelsespark af eventyreren og amatorarkitekten *Georg Carstensen*, hvis karriere findes beskrevet her. Med sine fantasibygninger og romantiske haveanlaeg udgor Tivoli en meget nøvendig modvaegt til de haarde krav, tiden stiller til mennesker i en storby.

Page 245: *Havearkitektur af Troels Erstad.* I Danmark har havearkitekter arbejdet haand i haand med arkitekterne igennem adskillige generationer, og de bliver ofte raadspurgt i forbindelse med ingeniorarbejder, f. eks. ved anlaeggelse af veje eller flyvepladser. Almindeligvis forandrer havearkitekterne i vid udstraekning arealet, der omgiver lejlighedsbebyggelser. For saa vidt som dansk havearkitektur er tilknyttet nogen speciel skole har den sin rod i den frie, engelske, maleriske opfattelse fra det 18. aarhundrede, selvom en vis stivhed er tilladt, hvor den skønnes passende.

Page 249: *Dansk Møbelarkitektur af E. Kindt-Larsen.* En af de mest kendte danske møbelarkitekter traekker forskellige linier op i møbelkunsten. Han finder, at det mest karakteristiske ved moderne dansk møbelkunst er den gennemførte enkelhed. Foruden illustrationer af haandvaerksfremstillede møbler afbildes exempler paa fabriksfremstillede møbler lavet af Faellestoreningen for Danmarks Brugsforeninger og de sammenfoldelige Portex Møbler (specielt beregnet paa export).

Page 253: *Moderne danske Tapeter af H. J. Hitch.* I Danmark og i det hele taget i Skandinavien er interessen for tegning af moderne tapeter blevet stimuleret af en raekke interessante prisopgaver. Disse har vist sig at vaere meget populaere og der er indkommet ikke mindre end 700 besvarelser hovedsageligt fra arkitekter. Den forste betydningsfulde danske prisopgave blev stillet i 1930 og resultatet var Frode Jorgensens *net*-monster og Bent Karlbys *bambus*-monster, som for resten er saa forskellige, som de vel kan vaere. I Danmark indskraenker brugen af tapeter sig ikke blot til hjemmet, men er ogsaa blevet vel anvendt i offentlige bygninger og institutioner, med saerligt held i et nyt hospital i Holbaek tegnet af Groth Hansen.

Novembre 1948

Page 211: *Sol et Paysage, par Preben Hansen.* Le Danemark ne possède qu'une seule frontière terrestre—celle qui borne l'Allemagne au sud de Jutland—et la longueur de ses côtes est augmentée par la présence d'un grand nombre de baies et de criques. La configuration du terrain lui-même n'a pas changé depuis son modelage par les glaciers de l'époque préhistorique. Le climat est doux, l'influence prépondérante étant le vent de l'ouest, vent qui a déterminé l'orientation des maisons, dont l'axe longitudinal court, en général, de l'est à l'ouest. Le premier matériel de construction adopté fut le bois, mais la brique se trouva introduite au douzième siècle et celle-ci continue toujours d'être le matériel caractéristique employé de nos jours. Le paysage danois est plutôt restreint, chaque morceau de terrain étant rigoureusement utilisé.

Page 219: *L'Architecture Domestique au Danemark, par Kay Fisker.* Avant le grand incendie de 1728, Copenhague consistait presque entièrement de maisons construites de briques et de bois. Après l'incendie, des maisons à pignon, à trois étages, d'un style baroque initié par Johannes Cornelius Krieger, se généralisèrent, ces dernières se trouvant supplantées vers le milieu du siècle par un genre classique plus uniforme, attribuable à Nikolaj Eigtved, l'architecte du Roi Frederick V. Un autre grand incendie eut lieu en 1795, mais l'évènement le plus désastreux dans l'histoire de Copenhague fut la guerre avec l'Angleterre dans la première partie du dix-neuvième siècle. Ce ne fut que vers 1830 que les conditions commencèrent à s'améliorer, le premier décret relatif à la construction ayant été passé en 1856.

Trois types de maisons détachées se remarquent dans les faubourgs de Copenhague: le genre de maisons à toit en pente, faites de brique rouge, qui fut popularisé il y a environ vingt ans par le Bureau d'Etudes de l'Union des Architectes Académiques et par l'Union Nationale pour l'Amélioration des Maisons; un second genre, caractérisé par des toits à chaperon faisant saillie, et souvent d'un plan irrégulier, émanant de l'œuvre plus récente de G. M. Bindesboll au siècle dernier; troisièmement, le style à toit en terrasse appartenant au mouvement cubiste. La construction d'appartements dès 1930 fut entravée par la popularité continuelle de l'appartement démodé à deux pièces et par la

[continued on page 258

The Yacht Club Bar

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continued from page 256]

tradition que toutes les pièces familiales devaient donner sur la rue avec la cuisine, etc., à l'arrière. Cependant, beaucoup de progrès a été réalisé et il paraît probable que la construction de blocs d'immeubles à douze ou quatorze étages, actuellement très communs en Suède, soit adoptée d'une façon générale dans un prochain avenir.

Page 227: *Technique, Instruction et Application, par G. Anthony Atkinson.* Les matériaux de construction traditionnels au Danemark sont les briques et les tuiles flamandes d'argile. L'emploi de ces tuiles, qui exigent des toits à lignes hardies et simples, a amené une certaine netteté de contour dans les édifices danois.

Deux manières existent d'entrer à l'Ecole Académique d'Architecture: (a) à la suite d'une éducation générale secondaire, ou (b) par voie d'une école technique primaire et d'un apprentissage dans un métier. Mais même les candidats qui sont admis par la première méthode doivent avoir passé d'abord six mois sur un terrain de construction, d'où il s'ensuit que tous les étudiants d'architecture ont déjà quelque expérience pratique de la construction. La forme d'entreprise architecturale la plus commune est représentée par les maisons privées composées d'un ou deux associés et disposant d'un nombre réduit d'assistants; les ingénieurs et les architectes opèrent en collaboration étroite mais travaillent généralement indépendamment les uns des autres. Il n'existe que peu d'entrepreneurs généraux, les prix des travaux étant fixés et les contrats signés par les diverses branches de l'industrie séparément.

Page 239: *Un Plan Régional Intérimaire pour Copenhague.* Copenhague représente dans sa structure une cité centralisée du type normal européen, avec une population de 1,100,000 habitants. Les nouveaux projets d'urbanisme prévoient une population finale d'un million et demi, avec une période intermédiaire quand la population sera de 1,300,000. Ils envisagent la construction d'un nombre de chemins de fer électriques s'étendant dans les alentours, le développement des faubourgs suivant ces lignes au lieu de se déployer concentriquement autour de la ville comme dans le passé. La principale expansion future sera orientée vers l'ouest, où en plantant des bois sur la plaine et en arrangeant des facilités pour les bains de mer sur la côte, cette région sera rendue plus plaisante. Un nouveau projet de loi soumis cette année au parlement fournira, s'il est passé, pleins pouvoirs aux Autorités pour empêcher le développement de constructions dans certaines localités.

Page 241: *Tivoli, par G. Biilmann Petersen.* Les jardins Tivoli à Copenhague sont connus par tous les visiteurs de la ville. Il semble paradoxal que leur existence soit attribuable au fait qu'ils sont situés au centre de la ville, où le régime des baux à court terme a découragé le développement de constructions. Tivoli fut ouvert au public comme jardin de plaisance en 1843 par l'aventurier et architecte amateur George Carstensen, dont la carrière est décrite dans ces pages. Grâce à ses édifices fantastiques et à ses paysages romantiques, Tivoli sert de contrepoids indispensable pour adoucir les conditions entraînées par les dures nécessités de notre âge matérialistique.

Page 245: *Aménagement des Jardins, par Troels Erstad.* Au Danemark, les jardinistes paysagistes, depuis plusieurs générations, travaillent étroitement avec les architectes, et leur opinion est souvent recherchée dans le cas d'entreprises de construction telles que routes et aérodromes. Il est assez commun pour les contours des terrains autour des immeubles d'être radicalement modifiés. Pour autant qu'il soit possible d'associer les jardins paysagers danois à une autre école quelconque, leur origine est attribuable à la tradition pittoresque anglaise du dix-huitième siècle, mais ils manifestent un certain aspect formel lorsque l'occasion l'exige.

Page 249: *Style d'Ameublement Danois, par E. Kindt-Larsen.* Un des principaux dessinateurs de meubles danois discute dans cet article les tendances actuelles. Il trouve que la caractéristique la plus prononcée de l'ameublement moderne danois, c'est son extrême simplicité. Outre des meubles faits à la main, des illustrations sont reproduites de quelques, objets d'ameublement utilitaire fabriqués par la Société Co-opérative en Gros, ainsi que de quelques exemples de l'ameublement Portex démontable (spécialement destinés à l'exportation).

Page 253: *Des Papiers à Tapisser Récents Danois, par H. J. Hitch.* Au Danemark, et en Scandinavie en général, le dessin des papiers tenture a été beaucoup influencé par les concours. Ceux-ci sont devenus très populaires, ayant évoqué jusqu'à 700 inscriptions, soumises principalement par les architectes. Le premier important concours danois eut lieu en 1930, et produisit le dessin 'à mailles' de Frode Jørgensen et celui 'à bambou' de Bent Karlby, exemples des deux principaux styles contrastés. Au Danemark, l'emploi du papier teint ne se borne pas aux usages domestiques, ayant été utilisé avec beaucoup de succès dans les institutions et bâtiments publics, notamment dans un nouvel hôpital dessiné par Groth-Hansen à Holbaek.

November 1948

Seite 211: *Land und Landschaft von Preben Hansen.* Dänemark hat nur eine Landgrenze, in Südjütland, das an Deutschland grenzt; in seine Südküste schneiden zahlreiche grössere und kleinere Buchten ein. Die Gestalt des Landes hat keine Veränderung erlitten, seitdem sie von den Gletschern der Eiszeit gebildet wurde. Das milde Klima wird von Westwinden beherrscht. Der Westwind hat auch die Orientierung der Häuser bestimmt, deren Längsachse von Osten nach Westen läuft. Zu Beginn wurde Holz als Baumaterial benützt, Backstein wurde im 12. Jahrhundert eingeführt, er ist bis auf den heutigen Tag das charakteristische Baumaterial geblieben. Der dänischen Landschaft fehlt es an Weite, jeder kleinste Flecken Erde ist bebaut und ausgenützt.

Seite 219: *Hausbau in Dänemark von Kay Fisker.* Vor dem grossen Brand von 1728 bestand Kopenhagen beinahe ganz aus Backstein- und Fachwerkhäusern. Nach dem Brand war ein gegiebeltes dreistöckiges Barockhaus die Regel, das auf Johannes Cornelius Krieger zurückgeht. In der Mitte des Jahrhunderts wurde es durch einen einförmigeren klassizistischen Typus verdrängt, Nikolaj Eigtved, der Architekt König Friedrich's V. ist sein Urheber. 1799 gab es wieder einen grossen Brand, aber das verheerende Ereignis in Kopenhagens Geschichte war der Krieg mit England im beginnenden 19. Jahrhundert. In Kopenhagens Vororten kann man drei verschiedene Typen von Einzelhäusern unterscheiden: Häuser aus rotem Backstein mit steilem Dach waren vor etwa 20 Jahren bei der Entwurfs-Abteilung des Verbandes Akademischer Architekten und der Nationalen Vereinigung für verbesserten Hausbau beliebt; für einen zweiten Typus ist ein überhängendes Giebelschutzdach, das nicht ganz

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regelmässig in der Anlage ist und auf die letzten Arbeiten von G. M. Bindesbøll im 19. Jahrhundert zurückgeht, charakteristisch dazu kommt als dritter Typus das Haus mit flachem Dach der modernen kubistischen Bewegung. Der Bau von Etagenhäusern hat um 1930 unter der steigenden Beliebtheit der veralteten 2 Zimmer-Etage gelitten und unter der Tradition, dass alle Wohnräume nach vorn und Küche etc. nach hinten zu liegen haben; aber in dieser Beziehung gibt es mancherlei Fortschritt, und 12 bis 14 Stock hohe Häuserblocks, wie sie jetzt in Schweden üblich sind, werden voraussichtlich auch in Dänemark die Regel werden.

Seite 227: *Technik, Schulung und Praxis von G. Anthony Atkinson.* Backstein und Lehm-Dachpfannen sind das übliche Baumaterial in Dänemark. Der Gebrauch von Dachpfannen, der Dächer mit kühnen und einfachen Linien erfordert, hat eine einfache Umrisslinie zur Folge. Für die Zulassung zu akademischen Architektenschulen gibt es zwei Voraussetzungen: entweder allgemeine Mittelschulbildung oder eine technische Schule und praktische Lehrzeit. Aber selbst jene, die auf die ersterwähnte Weise zugelassen werden, haben sechs Monate auf einem Bau zu arbeiten, mit dem Ergebnis, dass alle Architektur-Studenten eine gewisse praktische Ausbildung bekommen. Die übliche architektonische Berufsorganisation ist die Privatfirma, die aus einem oder zwei Teilhabern und einigen Angestellten besteht. Ingenieure und Architekten arbeiten zwar am gleichen Bau aber zumeist gesondert. Es gibt einige grosse Bauunternehmer, aber im allgemeinen werden Kostenanschläge und Abschlüsse getrennt von Architekten und Ingenieuren gemacht.

Seite 239: *Neue Pläne für Kopenhagen.* Kopenhagen entspricht in seiner Anlage dem allgemeinen kontinentalen europäischen Typus für eine Bevölkerung von 1,100,000. Die neuen Pläne sind für eine Bevölkerung von anderthalb Millionen vorgesehen, mit einem Zwischenstadium von 1,300,000. Anlagen elektrischer Eisenbahnen in die Umgegend sind vorgesehen, mit der Absicht, dass die Entwicklung der Vororte diesem Netz folge, anstatt sich wie bisher konzentrisch von der Hauptstadt aus auszubreiten. Die Hauptausdehnung soll nach dem Westen gerichtet sein; die Ebene und die Küste sollen durch Anlage von Wäldern und Bademöglichkeiten einen neuen Anreiz bekommen. Ein neuer Antrag, der dem Reichstag in diesem Jahre vorgelegt werden wird, wird, wenn er durchgeht, für gewisse Landstrecken ein Bauverbot beantragen.

Seite 241 : *Tivoli von G. Büilman Petersen.* Jeder Besucher von Kopenhagen kennt die Tivoli-Gärten. Es ist seltsem genug, dass sie ihre Existenz dem Umstand verdanken, dass sie im Zentrum der Stadt liegen, wo kurzfristige Pachtverträge die bauliche Entwicklung beeinträchtigt haben. Tivoli wurde 1843 von dem Abenteurer und Amateur-Architekten Georg Carstensen begründet, dessen Laufbahn in diesem Aufsatz geschildert wird. Mit seinen phantastischen Gebäuden und seinen romantischen landschaftlichen Anlagen bildet Tivoli das notwendige Gegengewicht zu den harten Notwendigkeiten einer materialistischen Zeit.

Seite 245: *Gartenanlagen von Troels Erstad.* In Dänemark haben Generationen von Landschaftsgärtnern zusammen mit Architekten gearbeitet und ihr Rat ist für Ingenieur-Anlagen wie Strassen und Flugplätze besonders erwünscht. Die Umrisse der Grundstücke für Wohnhäuser sind beträchtlich verändert worden. Soweit Zusammenhänge mit anderen Schulen nachweisbar sind, sind dänische Landschaftsgärtner von der englischen malerischen Tradition des 18. Jahrhunderts beeinflusst, trotz regelmässigeren Anlagen wo sie wünschenswert erschienen.

Seite 249: *Dänische Möbelentwürfe von E. Kindt-Larsen.* Einer der führenden Zeichner für Einrichtungen in Dänemark erörtert die verschiedenen herrschenden Richtungen. Das charakteristische Merkmal moderner dänischer Einrichtungen ist ihre grosse Einfachheit. Ausser handgearbeiteten Einrichtungen werden auch Massenfabrikate illustriert, die namentlich von Engros-Konsum Verein hergestellt werden. Ebenso Beispiele der zerlegbaren Portex Möbel, die besonders für Export gemacht werden.

Seite 253: *Neue dänische Tapeten von H. J. Hitch.* In Dänemark und in Skandinavien wurden Tapetenentwürfe in der Hauptsache durch Preisausschreiben beeinflusst. Diese sind sehr beliebt, mehr als 700 Entwürfe, zumeist von Architekten wurden eingesandt. Das erste bedeutende dänische Preisausschreiben hat 1940 stattgefunden. Frode Jørgensen's 'Netz'-Muster und Bent Karlby's 'Bambus'-Muster, Beispiele der wesentlichsten Typen, waren die Hauptergebnisse. In Dänemark sind Tapeten nicht auf Wohnhäuser beschränkt, sie werden mit Erfolg in öffentlichen Gebäuden verwendet. Erwähnt sei das] neue Krankenhaus in Holback nach dem Entwurf von Groth-Hansen.

Ноябрь 1948 г.

Стр. 211. ПРЕБЕН ХАНСЕН. СТРАНА И ЕЕ ЛАНДШАФТ (ДАНИЯ)

Дания имеет только одну сухопутную границу, а именно, границу с Германией в Южной Ютландии. С другой стороны, морская ее граница относительно очень длинна, благодаря чрезвычайно развитой береговой линии со множеством небольших заливов и полуостровов. Контуры местности остались без изменения со времени своего формирования в ледниковый период. Климат отличается мягкостью, благодаря господствующим западным ветрам. Этими же ветрами опредедяется ориентация домов: их продольная ось обычно следует географической параллели. До XII века постройки были почти исключительно деревянные. После этого времени стал понемногу входить во всеобщее употребление кирпич, который и поныне является главным строительным матерьялом. Ландшафт страны отличается миниатюрностью своего масштаба. Каждая пядь земли использована.

Стр. 219. КЭЙ ФИСКЕР. АРХИТЕКТУРА ЖИЛЫХ ДОМОВ В ДАНИИ

До большого пожара 1728 г. дома в Копенгагене были почти исключительно „фахверочными" постройками из кирпича и дерева. После пожара вошли в обычай трехэтажные дома с остроугольными покатыми крышами и соответственными боковыми стенами с островершинным треугольным завершением („гэйбл"), введенные архитектором Иоаном Корнелиусом Кригером. Несколько позднее, около средины XVIII века, этот стиль сменился более единообразно-классическим типом построек, введенным архитектором короля Фредерика V Николаем Айгветом. Большим ударом для строительства в Копенгагене был второй большой пожар, происшедший в 1795 году, а еще больший ущерб был ему нанесен войной с Англией в начале XIX века. Условия стали улучшаться только начиная с 1830 г. Первый акт строительного законодательства был проведен в 1856 году. В предместиях Копенгагена можно различить три типа особняков. К первому типу относятся особняки из красного кирпича, с

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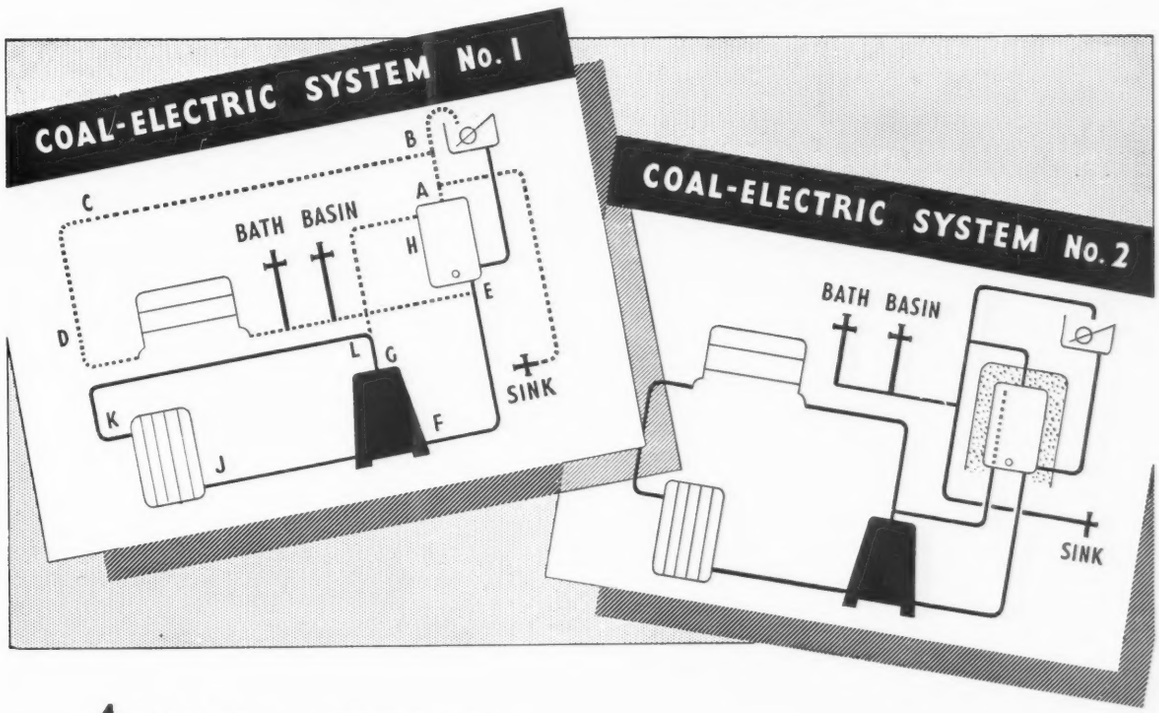
WATER-HEATING *quiz*

Which is correct?



Answer– SYSTEM No. 2

The reason . . . In system No. 1 the incorrect piping is shown in broken lines. There are three complete circuits causing waste of electricity. The towel rail, basin and bathroom taps are on one loop ABCDE, through which electrically-heated water will circulate and it is likely that a similar movement will also take place through the boiler loop EFGH and the radiator loop EFJKLH. Also, the running of the vent pipe vertically from the hot storage vessel causes single pipe circulation in AB and beyond. In addition, the length of dead leg to the sink tap is excessive.

The correct system No. 2 eliminates these faults by providing direct draw-offs to all taps and connecting the towel rail to the radiator circuit which will be heated only when the boiler is in use. Note that the flow pipe of this circuit originates at the boiler itself instead of branching off the flow pipe to the cylinder.

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покатой крышей, ставшие популярными благодаря усилиям Комитета по Содействию Проектированию при Академическом Союзе Архитекторов и Союза Улучшения Домостроительства; ко второму типу принадлежат дома со свешивающейся тесовой крышей, часто имеющие план неправильного очертания, в общем следующие стилю более поздних работ зодчего Г. М. Биндесбёлля, жившего в прошлом столетии; наконец, к третьему типу следует отнести дома с плоскими крышами в духе новейшего кубизма. В XIX веке строительству многоквартирных зданий („доходных домов") препятствовала продолжавшаяся популярность устарелого типа двухкомнатных квартир, а также господствовавший в то время предрассудок, что все жилые комнаты должны обязательно выходить на улицу, а кухня и прочие вспомогательные помещения должны выходить на двор. С тех пор, однако, взгляды значительно продвинулись вперед, и надо думать, что в ближайшем будущем в Дании войдут в обиход двенадцатиэтажные и четырнадцатиэтажные жилые дома „башенного" типа, которые уже теперь являются заурядными в Швеции.

Стр. 227. АНТОНИ АТКИНСОН. АРХИТЕКТУРНАЯ ТЕХНИКА, АРХИТЕКТУРНОЕ ОБРАЗОВАНИЕ И АРХИТЕКТУРНАЯ ПРАКТИКА (В ДАНИИ)

Традиционными строительными материалами в Дании являются кирпич и фасонная черепица. Последняя требует простоты очертания крыши, а значит и простоты очертания самих построек. Для вступления в Архитектурную Академию есть два пути: один идет через среднюю школу общего образования, а другой — через низшее техническое училище и профессиональное ученичество. В первом случае в программу архитектурного образования входит шесть месяцев практики на постройке. Обычной организационной формой архитектурной профессии является частная фирма с одним или двумя полноправными участниками (партнерами) и небольшим составом помощников. Инженеры и архитекторы работают в тесном сотрудничестве, но в организационном отношении они почти всегда независимы друг от друга. Число строительных подрядчиков, берущих на себя организацию всей работы целиком, невелико: обычно каждый специальный подрядчик работает по отдельному контракту.

Стр. 239. ПРЕДВАРИТЕЛЬНЫЙ РАЙОННЫЙ ПЛАН КОПЕНГАГЕНА

По структуре своей Копенгаген представляет собою типичный континентально-европейский централизованный большой город. Теперешнее его население: 1,100,000. По новому плану население предполагается современем довести до 1½ миллионов, с промежуточным числом в 1,3 миллиона. Планируется сеть электрических железных дорог, распространенная на окружающий район, имея в виду развитие предместий вдоль железнодорожных линий, вместо прежнего концентрического роста. Будущее расширение города предполагается направить главным образом на запад, равнины и морской берег которого будут сделаны более привлекательными путем лесонасаждения и устройства морских купален. Соответствующее законодательство будет представлено на рассмотрение Парламента в этом году, и если оно пройдет, то правительство получит весьма необходимые полномочия для предупреждения застройки некоторых частей района.

Стр. 241. Б. БИЛЬМАНН ПЕТЕРСЕН. ТИВОЛИ

Сады „Тиволи" в Копенгагене известны каждому, кто побывал в этом городе. Как ни странным это может показаться, они обязаны своим существованием краткосрочности земельной аренды в центральной части города, не дававшей простора для строительства. „Тиволи" было основано в 1843 г. в качестве увеселительного сада искателем приключений и архитектором-любителем Георгом Кастерсеном, карьера которого здесь описана. Эти сады, со своими фантастическими постройками и романтическим ландшафтом, представляют весьма необходимый противовес суровым требованиям нашего материалистического века.

Стр. 245. ТРОЭЛС ЭРСТАД. РАЗБИВКА САДОВ (В ДАНИИ)

В Дании художники-садоводы работают в близком сотрудничестве с архитекторами уже в течении нескольких поколений. Их часто консультируют также в связи с инженерными сооружениями, как например, проездными дорогами и аэродромами. Чтобы создать подходящий фон для постройки, самые очертания прилегающего земельного участка нередко подвергаются радикальному изменению. Генетически датское художественное садоводство можно считать исходящим из английского „живописного сада" XVIII века, с примесью, однако, некоторой „формальности" стиля в тех случаях, где это признается подходящим.

Стр. 249. Е. КИНД-ЛАРСЕН. ОФОРМЛЕНИЕ ДАТСКОЙ МЕБЕЛИ

В этой статье один из руководящих оформителей мебели в Дании рассматривает тенденции в развитии рисунка мебели в этой стране. В качестве наиболее характерной тенденции в новейшей датской мебели он отмечает крайнюю простоту рисунка. Помимо ручной работы, автор приводит несколько примеров мебели для массового обихода, изготовляемой датским Оптово-Потребительным Обществом, а также разборной мебели, специально изготовляемой для экспорта, известной под именем „портекс".

Стр. 253. Х. ДЖ. ХИТЧ. СОВРЕМЕННЫЕ ОБОИ (В ДАНИИ)

Во всей Скандинавии, а в частности и в Дании, большое влияние на рисунок обоев имеют результаты специальных конкурсов на лучшие рисунки, в которых принимают участие около 700 кандидатов, преимущественно архитекторов. Первый значительный конкурс этого рода был устроен в 1930 г., и в результате его появился „сетчатый" узор Фроде Йогенсена и „бамбуковый" узор Берт Карлби. Узоры эти являются примерами двух противоположных типов. В Дании обои находят себе применение не только в частных квартирах, но и, с большим успехом, в общественных зданиях, как например, в новом госпитале в Холбэке, спроектированном Грот'-Гансен'ом.

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