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Summary

Coat factory in New York (pages 266–269)

The firm of Barkin, Levin & Co. commissioned the architect to build a factory and administrative centre outside the industrial zone. The aim with regard to the building in question was to go beyond the current level of attainment for such factories. On one hand, the question was to achieve a perfect production unit, on the other, a high architectural standard. This conception of the work site has given rise to quality work.

The Barkin, Levin & Co. factory is the first of its kind in the States which houses both workshops and administration under one and the same roof. One ramp allows for the arrival of fabric and the departure of finished articles. The fabric then comes to a storage depot (see design sheet in this issue) and finally to the cutting rooms. Once the coats are finished, they are sent for checking and then to the dispatch store.

When each cutter has finished her work, she hangs the article in question on a hook, which carries it automatically to the checking and dispatch sections. The production flow is shown in the plans in this issue.

The organization of the store is equally excellent. Heavy items are not carried by hand. Electric trolleys—thanks to a pallet system—allow for a complete utilization of the area available and of the height of the store rooms. The design sheet in this issue shows different utilization schemes. The work on the dispatch room can also be carried out without difficulties or complications.

In all the factory work is done by artificial light; the office section alone is open. Construction: metal skeleton, glass and plain walls.

The Atlas rocket plant in San Diego (pages 270–274)

The Convair Astronautics grounds cover 85ha. Up to now only 9.3ha. have been used for building; a further 9.3ha. have been given over to car parks! All the buildings can be doubled in size, basing this estimate on their present proportions. A truly representative two-storey building is flanked on two sides by two six-storey buildings. The west building holds the administrative offices, the east building the technical offices. A complex of buildings to the south of the technical offices houses laboratories, electronic computers and others. To the east of this complex is the factory shed with its 55 m transoms. This generous span allows for maximum freedom and scope in the future.

The architects are insistent on the fact that the climate necessitates architecture which is both pleasing and perfect. Therefore it is not simply a matter of publicity which has led to all this care being taken with architectural values.

Welding shop at Bulach (pages 275–277)

Questions of noise and extension possibilities forced the client to look for a new site in a future industrial district. The complaints from the neighbourhood about the noise made the old site impossible. The story of this building shows once again how necessary it is to pay attention to the arrangement of industrial sites.

Metal Construction Workshop, Kleinfützel (pages 278–281)

The factory shed is situated off the main roads in a small village on the French frontier.

The main line of production here consists in standardized construction elements of metal (doors for air raid shelters, garage

doors, letter boxes, grids, railings etc.). Factory shed and office building are so sited that both can be enlarged. On the south side there is planned the shed for a foundry, which can be operated apart from the rest of the plant.

Cloakroom and dining-room are in the office building on the passageway which is separated from the offices but connects them with the factory shed on the north side and the future foundry on the south side.

On this passageway is situated the technical office between the foreman's office in the shed and the business office on the upper floor.

Both buildings have steel skeleton construction and are finished on the long sides with glass and partly with bricks. On the narrow ends the brick structure projects beyond the skeleton.

The brick walls are only of one course, 12 cm. thick. On their inner face are rendered, Polystyrol tiles. The Polystyrol tiles and their layer of mortar give the building sufficient insulation against rain even on the most exposed side.

The projecting masonry is run in a course of stretchers, the filling is without bond. Reinforced wood fibre-cement slabs are laid on the roof girders and covered with gravel stucco.

Storage depot for steel profiles in Padua (pages 282–285)

The building in question is sited on industrial premises. The construction has been carried out in reinforced concrete. The underlying constructional principles are novel and fertile in architectural ideas.

Social centre in Mannheim (pages 286–287)

The building in question accommodates the rest-rooms and dining-rooms for the 1,600 workers and employees of the firm of C. F. Boehringer and Sons.

The dining-room has a seating capacity of 350. The workers and employees serve themselves at the counter. A conference hall for fifty people has its own entrance door. At the entrance to the large dining-room there are two kiosks where cigarettes, drinks and other items may be bought.

Catering service at Geneva Airport (pages 288–290)

The service in question can be used by all the transport companies, including Swissair. It is concerned with the stocking of newspapers, timetables, tobacco, drinks and snacks. A special Swissair organization prepares all the hot and cold meals as well as the table service equipment.

The building has two storeys. On the top storey at street level there are administrative offices and the customs; on the lower storey at runway level the various sections:

Tobacco and drinks
Fabrics and printed matter
Dishwashing
Kitchen (hot and cold meals)
The two storeys are connected by way of two goods lifts.

Urban Structure and the Foundation of Brasilia (pages 291–296)

Urban structure is an aspect assumed by Fate for it moulds a way of life.

In a residential building, or a block of flats, it is possible to be isolated within the four walls. It is also possible within these surroundings to have around one a number of well-designed objects, even if the demand for "good design" gradually becomes insupportable. But that is about all. As soon as our professional activities or other factors force us to act on the vast stage we call "the metropolis," we fall under the sway of forces beyond our control. Whoever wishes to experience this degradation of the mass of human beings should go for an hour or two's walk during a rush-hour in New York, London or Paris.

Urban structure and a way of life are indissolubly linked together.

As a result a burning question arises: what will be the urban structure of the future? Functional reasons render the compact city of 10, 8, 4 or 2 million inhabitants unhealthy or impossible, without mentioning the vulnerability (atomic bombs) of such agglomerations. We have already spoken elsewhere of the abnormality of the present situation latent in the fact that town-planning is a retarded product of a given period and that it normally requires centuries to catch up on this delay.

In an epoch which marks the beginning of a new tradition all the problems come together at once, right from the way of life to urban structure itself. Here we may remark a most astonishing phenomenon: to understand the trends of the future we must leave Europe and go to those countries that are economically under-developed. It is here that the signs of the future are most distinct as far as large cities of times to come are concerned.

The question of the optimum size of a town has often been studied and discussed. The chief architect in Rotterdam, C. van Eesteren, believes that an agglomeration of 700,000 or 800,000 inhabitants is too large. Another question may be appended to the first: compact towns or scattered ones. Will small centres form like the New Towns in England that are independent in themselves and number about 50,000 inhabitants?

Two capitals in construction at the present time best illustrate certain trends for the future: Chandigarh and Brasilia. In both cases one architect is pointing out the path to be followed: Le Corbusier and Lucio Costa. Here we wish to study Brasilia in greater detail; Chandigarh, however, will be drawn into the discussion to provide a point of comparison from the point of view of town-planning.

Lucio Costa's General Plan

It was Nehru who commissioned Le Corbusier to plan Chandigarh; the general plan for Brasilia came about as a result of a limited town-planning competition. Lucio Costa merely sent a sketch in, rather reminiscent of the margin sketches of Leonardo da Vinci in the Codex Atlanticus, in which Leonardo indicated the subsequent design of Renaissance churches.

Lucio Costa is one of the most sensitive of artists. He has a deep understanding of history and an inviolable love of that which is new. His views have been published in one of his rare written works, and in this he touches on a problem all too often misunderstood: too frequently the word "functional" is used to excuse artistic poverty of ideas; on the other hand, the plastic arts are confused with fashionable playthings. As a matter of fact, this is a great danger in the U.S.A., where architects like Edgar Stone, Wallace Harrison and, unfortunately, Philip Johnson too, since a little while ago, mix decorative baubles with plastic design.

Lucio Costa's view may be indicated by a few sentences of his taken from a special 1952 issue of "Architecture d'aujourd'hui" devoted to Brasilia: "The recognition of plastic quality as a foundation stone of a work of architecture is one of the most urgent of tasks confronting the architect during his professional training. To understand the nature and scope of this part of the complex that is a piece of architecture one must first be clear about what architecture actually is.

Architecture is building, above all, but at the same time it is a plastic art, because for each of the many problems facing an architect from the time of the first idea to the construction of the building there is a whole range of possibilities within the limits given. These minima and maxima are dictated by estimates, technology, environs, function and construction programme. The architect must, therefore, rely on his intuition when it comes to the selection of the most harmonious details with regard to the whole from among number offered within these limits. The plastic urge underlying this choice is that element which distinguishes architecture from the mere construction of buildings... It is the union of these two views, in which the play of free or restricted designs can be conscious or spontaneous, that are to be found the infinite and virtually plastic forces of modern architecture."

The pilot plan of Lucio Costa is based, in the architect's words, on the gesture that anyone would make if he wished to obtain possession of or divide a given piece of ground, i.e. two axes intersecting at right angles. The north-south axis, the residential district, is slightly bent and forms the aeroplane-like plan of Brasilia. A main thoroughfare constitutes the skeletal structure of this urban zone. The residential blocks lining both sides of this artery are all alike as if they had been manufactured in the same factory.

The other axis, from east to west, is shorter. This is the monumental axis running from the Capitol to the main station. The Senate buildings, those for the national administration and others are disposed on both sides.

The large banks are set at the intersection of the two axes, as well as the big stores

and private administrative buildings. The eastern section of the monumental axis is the most advanced and here are the various government buildings and the cathedral.

The amusement district will be sited at the same intersection. The traffic will be channelled in such a way that it will not interfere with any residential function of the district. Each centre in this zone has its own access roads.

The Dimensions of Brasilia

The spread of this town, which was designed for about 500,000 inhabitants is quite amazing. The north-south residential axis is about 10 km. long. The monumental axis is 6 km. long. Such dimensions are almost frightening as was noticed by a comparative study carried out by the Master Class of the Graduate School of Design of Harvard University on the dimensions of Brasilia in relation to those of Chandigarh.

Thus, even the Mall—the monumental axis of Washington—is only 2.5 km. in length. This is enough to obliterate the plastic relationship between the Capitol and the Washington Monument at the other end. In Brasilia the distance between the Square of the Three Powers and the intersection of the two axes is 3 km. alone. The monumental axis of Paris running from the Arc de Triomphe to the Louvre is only 3.5 km. long and this is visually intersected by the Place de la Concorde. As we have seen, the residential axis is 10 km. long (from Manhattan Point up to 125th Avenue. Only one artery crosses it. All the other streets are access roads providing no means of crossing: Brasilia is a huge town arranged on only one large street! Studies in America show that this one large street should have at least 15 lanes to take up the traffic in the future! Is this possible?

Nevertheless another even more serious danger threatens the future of Brasilia. Its residential units of 240 x 240 m. are too small. No differentiation is possible and it impossible to escape a certain air of monotony. It seems to us that from this point of view the residential units of Chandigarh (800 x 1200 m.) are much more satisfactory and their access streets much better proportioned. To repeat what has been said: we cannot understand why the residential areas of Brasilia are so small and why Lucio Costa—normally a very modest man—did not consult his friend Le Corbusier, with whom he worked at the "Cité universitaire" in Paris on the Brazilian building.

The most interesting part of Brasilia seems to be the Square of the Three Powers—Praza dos tres Poderes. Here Lucio Costa and Oscar Niemeyer have attained a harmony that is almost perfect, a triangular composition forming the centre of the "aeroplane" plan of Brasilia and containing three plastic complexes: the seat of the President and of the government, the Supreme Court and the conference building. The composition of this example of townplanning seems to be an excellent illustration of the remark made by Le Corbusier: "Architecture is the cunning, accurate and magnificent play of volumes in light."

Town and Structure Today

Chandigarh and Brasilia have been created from nothing; both of them are government seats and correspond to a carefully considered organic principle. Among the architects who were invited to take part in the Brasilia competition was Marcello Roberto. His project, unlike that of Lucio Costa, was worked out to the last detail. Concentric residential districts were provided for in his plan, these being separated from one another and grouping work sites and dwellings together. A Harvard University study of this project shows that this form of town-planning has a future, as there is unity and plurality to be found in it at one and the same time. However, for a capital situated at an altitude of 1,200 m. it did not seem suitable. A certain amount of concentration seems justifiable in the case of Brasilia. Lucio Costa was able to come upon a form of town-planning that was adequate. Only the dimensions of the residential districts of Brasilia (240 x 240 m.) seem rather restricted and offer little space for the "extended dwelling."

From this point of view the residential districts envisaged by Roberto are more suitable. In the future it will perhaps be possible to increase the dimensions in the further planning of Brasilia along these lines. This will make for a greater freedom of movement while at the same time securing an enhanced intimacy in the residential areas.