



Aided housing in a new industrial city

Ciudad Guayana, Venezuela

This is a project for a new industrial city which, characteristically, has already been born and the infant threatens to grow faster than the plans, legislation and organization necessary for its formation.

The city has a beautiful and dramatic site at the confluence of the Orinoco and Caroni rivers in the centre of the Venezuelan Guayana (Guiana), open savannah country surrounded on three sides by rain forests, and about 300 miles from the relatively developed areas around Caracas and Maracaibo to the north-west. The region is rich in minerals—the summit of Cerro Bolívar alone consists of half a million tons of 65 per cent ore, it has unlimited hydro-electric and hydro-carbon resources and is easily accessible for heavy road and ocean-going sea transport. In 1954, two years after moving in men and equipment, Orinoco Mining Co., a US steel subsidiary, was exporting five million tons of ore annually and by 1962 there was a local population of some 50,000 in the already established town of San Félix, in the 'open' company-town of Puerto Ordaz, and in the various squatter settlements.

Ciudad Guayana is one of Venezuela's main footholds by which it can hoist itself out of the economic pause currently affecting the whole of Latin America. Fortunately for all concerned, the Corporación Venezolana de Guayana was created in 1960 and, in collaboration with the Joint Center for Urban Studies of MIT and Harvard University, is actively engaged on the economic and physical planning of the region as a whole, together with the development of detailed plans and action programmes for Ciudad Guayana itself.

This project is fascinating for anyone concerned with industrial and urban development, especially in under-developed areas, but, as Charles Abrams has said: 'The planning of Ciudad Guayana cannot be compared to the spawning of England's new towns, where industrial settlement was controlled throughout the country, investment was seasoned and property rights acknowledged both in tradition and practice. Nor can the city's development be compared to the United States, where investment in building is predominantly private, squatting almost non-existent, financial mechanisms matured and ample funds for building available at conscionable rates.'

Norman Williams, Director of the Project, wryly describes the planners' surprise on their arrival: 'At the start of the project, we Norteamericanos were full of high hopes—but, as things turned out, rather naive ones. Our attention was concentrated on how to develop a shining brand-new city, expressing throughout the best that modern city planning has to offer . . . rarely have glamorous hopes dissolved so rapidly on contact with reality. For it did not take many hours on the job to make it apparent that the real problem was quite different; and our Venezuelan colleagues are still kidding us about the surprised looks on our faces when we discovered this . . . Far from being virgin territory, the city contains some 50,000 people living in a series of scattered settlements, highly disorganized both physically and socially—with a high rate of unemployment and with large numbers of people in wretched housing, mostly lacking in the full range of urban services—few schools, few sewers, not even water. This situation called for making immediate decisions, in a real hurry, on all sorts of pending projects providing for immediate human needs . . . thus the processes of planning and implementation have necessarily gone on simultaneously. While perhaps less glamorous, this revised concept of the project was really

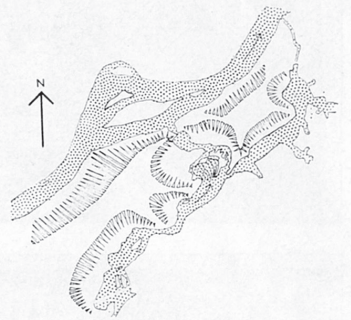
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Phases of growth

- 1 The Orinoco route will be developed first, linking the two industrial areas with the new centre and strengthening existing settlements along the river bank
- 2 The Caroni valley will then be developed, and the Orinoco areas linked directly together free of the centre
- 3 All four limbs are completed, and the southern by-pass constructed

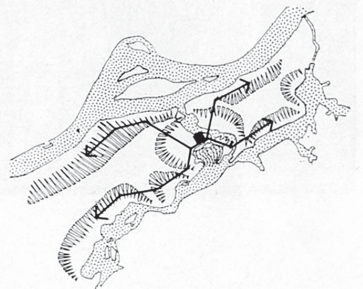
The site of Ciudad Guayana lies at the confluence of the Orinoco and Caroni rivers, which bring together natural resources, electric power and water for production and transport: three essentials for the new industrial city. The terrain is mainly flat, breaking into slopes down to the river-banks. These slopes form three distinct groups of districts:

The Orinoco districts, looking northwards over the llanos or great savannah
The Caroni districts, looking southwards towards the mountains of the Guayanos; and
The central district: natural focus of the whole area



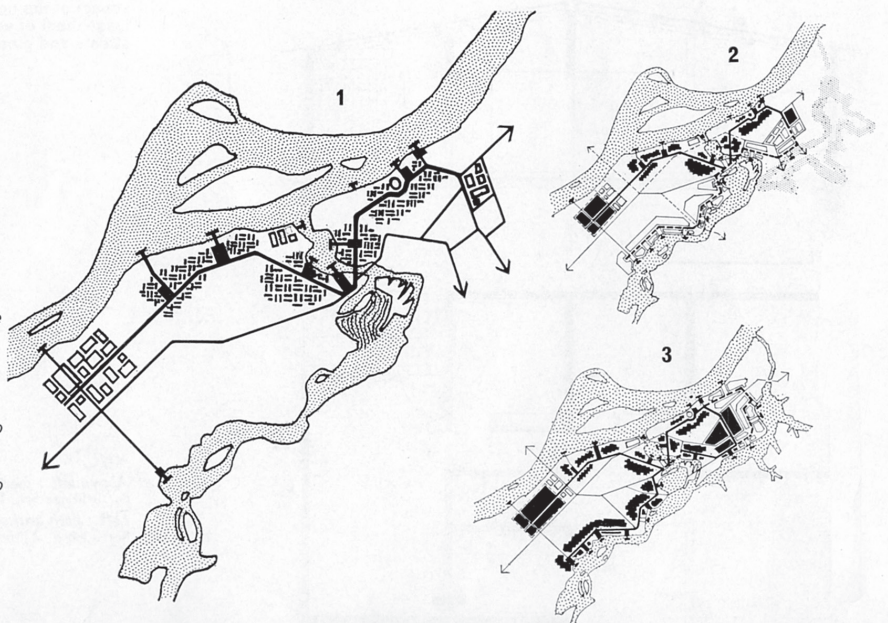
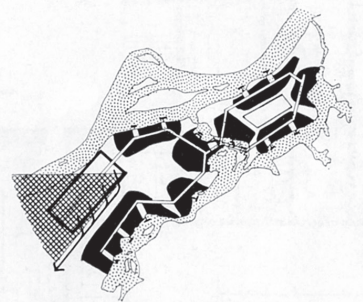
The central district Here, where the Caroni joins the Orinoco across rapids and falls, will be the first bridge over the Caroni linking the mineral-rich Guayana region with the rest of the country and the world, and allowing the future city to grow in four directions:

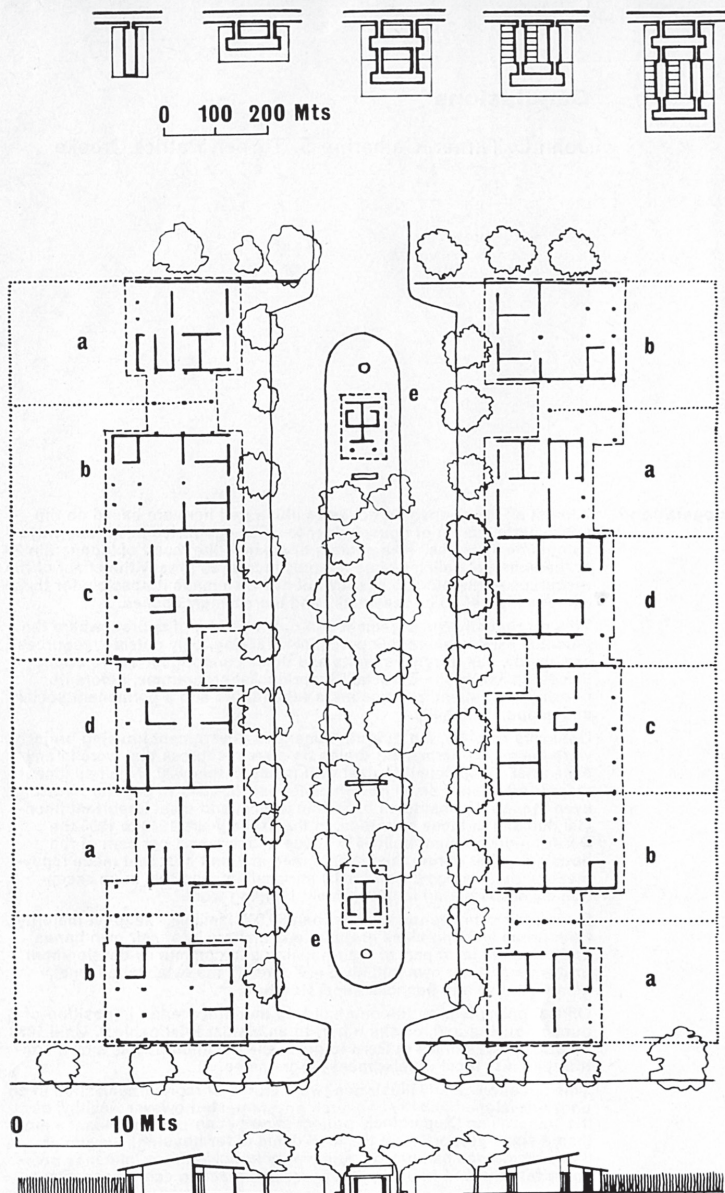
South-east and north-west along the Orinoco, and south-east and north-west along the Caroni and its future eastward extension



Residential areas will follow the river banks, and each will focus on a community centre extending to the river front and linked to the other centres by intercommunal routes

Industrial areas will be on the plateaux: heavy industry to the west, where prevailing winds will carry away its fumes; large-scale light industry to the East; while smaller scale industry will also be in the residential areas themselves



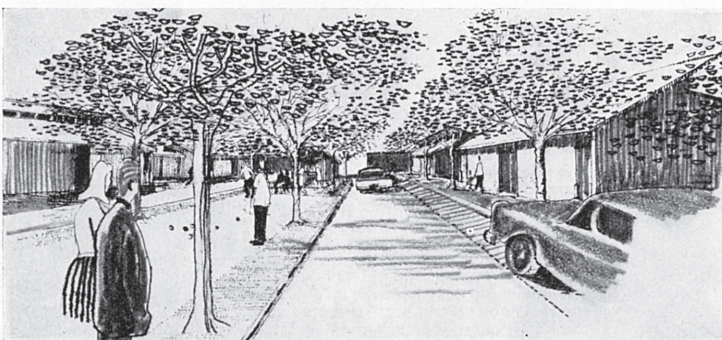


Designs for typical house groupings in Ciudad Guayana:

Top: house grouping variants and their communal areas, in relation to one another and to access roads. The groups shown sub-divided into plots are illustrated here

Middle: plan and section of a group of twelve houses (of types a, b, c, and d). At points 'e' are public water-points with communal showers and laundry areas

Bottom: perspective view of the communal area of a house group



all to the good; for our planning work had to come to terms at once with some of the most important aspects of the Latin American reality.'

Two housing problems typical of South America face the planners, architects and administrators of Ciudad Guayana: the 'company-town' problem, potentially solved by the creation of the city itself, and the squatter settlements inevitably stimulated by industrial and urban investments. The former could distort the city's initial formation, and the latter could wreck it altogether.

From the beginning, fortunately, the Orinoco Mining Co. was advised by Wiener and Sert, and the Company has avoided the worst evils of the classic 'camp' or company-town by throwing Puerto Ordaz open to all and sundry so that a good deal of the property is now in other hands. Even so, according to a company representative, only about 10 per cent of the ordinary workers actually live in Puerto Ordaz, the rest preferring the full independence offered by San Félix or the squatter settlements. Company housing, it appears, has been unsuccessful both socially and economically, and the sale of land has involved the Company, unwillingly and, until recently unprofitably, in real estate operations.

However, Puerto Ordaz is administratively independent and its integration into the new city should be relatively simple; the only major problem being the product of typical legislation and union contracts which, though aimed at the protection of the ordinary worker, tend to make him increasingly dependent on the employers by forcing them to give him a substantial part of his wages in the form of subsidized housing and other fringe benefits. In fact, the worker usually prefers to get the housing subsidy in cash.

Until such companies are enabled, through improved legislation, to pay their employees directly, and encouraged to pay them enough to be fully independent socially—that their wage be enough for them to save to build their own house, for example, instead of having to borrow one from the company, or to live in a shack—certain apparently secondary considerations, such as the length of the journey to work, are apt to have an exaggerated importance. In this particular case, local labour law and union contracts oblige the company to provide free housing and to make heavy compensation for transportation. As company directors naturally tend to judge everything by its impact on direct production costs, and to overlook the non-computable social factors, such as the worker's satisfaction with, and sense of security in his environment, Orinoco's interest in the location of the residential area does not necessarily coincide with that of the city as a whole, with those of its industrial development, or with those of its own employees.

Charles Abrams summarized the squatter settlement problem with admirable clarity: 'One of the main factors that will control the city's future pattern will not be what is put into the blueprint as much as what will be imposed by 'rancho' (squatter settlement) movements. The appearance of Caracas with the squatters dominating its horizon and planned portion of the valley, is an index to the influence of unguided population movements. That (Ciudad Guayana's) population leaped to 50,000 people before the industrial wheels were even beginning to creak suggests that the population influx will exceed by far the number of job opportunities that will be offered . . . If influxes are anticipated and planned for, the planning can be substantially preserved. This calls for a designation of sites on which settlement will be permitted and those on which it will be proscribed. It calls for firmness with understanding. It entails a policy of land layout that will permit settlement according to plan, help with materials where essential, and even undertake some inspirational building by the government to influence the character and course of growth. Rancheros will settle where they can if they are not told where they may. They will build what they can afford if they are not helped to build what they should. I am less worried, however, about what they will build than where they build it and less concerned about initial standards than about initial layout. Rancho houses will improve with time and with better economic conditions if the rancheros are given a stake. The slum concept and the public housing tenancy concept of the more developed nations are irrelevant in Ciudad Guayana.'