recorded, even then, something that is still valid: a pictorial value that the current Chilean architecture photography has also known how to benefit from.

NOTES

(1) This article is a product of Fondecyt Project 1090449: Chilean architectural culture and periodical publications 1930-1960. H. Torrent, Researcher in charge; H. Mondragón, A. Téllez, R. Hecht, Co-Researchers. In this project, there has been a systematic review of architecture journals published in the period: ARQUITECTURA (1935-1936), URBANISMO Y ARQUITECTURA (1936-1940), Bulletin of the College of Architects (1944-1963), ARQUITECTURA Y CONSTRUCCIÓN (1945-1950), PLINTO (1947), LA VIVIENDA (1954-1958), y ARQUITECTURA (1953).

(2) The series "modern residences" was published in URBANISMO Y ARQUITECTURA between 1936 and 1940. Although the name referred to a supposedly modern condition, it should rather be understood as a presentation of recent cases (that included novelties in comfort), and not at all an integral modern condition regarding special, formal and constructive novelty.

(3) Obviously, it is necessary to establish a difference from the activity carried out within the frame of what would later be called landscape architecture and that, certainly had already accumulated experience in urban parks and private gardens; an example are the gardens done by Oscar Prager, published iURBANISMO Y ARQUITECTURA n.° 8 (1940).

(4) The publicity of Hotel Pucón appeared in URBANISMO Y ARQUITECTURA n° 6 (1940), p. 23; the views of Concón, on page 64 of the same issue; those of Puerto Varas related to the article mentioned immediately above.

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Segregated infrastructure: integrated landscape

Danilo Lagos

The contemporary city has made large investments to build the big road infrastructures associated to a new mobility. These large scale urban pieces offer social and political dividends. Every new project reveals conflicts of interest and contrasting urban logics, a situation that seems to have largely overcome the singularity proposed by each case, as it involves processes that appear to be present in various latitudes. These processes show complex logics and trajectories, frequently characterised by progress and retrogress involving the construction and demolition of road nodes, demolition or sinking of motorways and, paradoxically, building others.

It is essential to understand better those processes which have been produced by the massive introduction of the automobile into the urban fabric; processes generally associated to construction in various forms of faster and more fluent ways. They are processes of a technical, historical and cultural nature that enhance the ideas, values and technical instruments valid at a given moment. Behind them there are some elements of the notion of city we have.

Constructing a road structure does not necessarily imply destroying a part of the city. The infrastructure interacts with its environment and it even goes ahead of its possible evolution. The first impact on the environment is the modification of the landscape in terms of its configuration. On the motorways, the running speed and the perception of the landscape are altered.

Marcel Smets(1) states that "the exponential growth of car ownership and generalised mobility have seriously altered the relationship between the nature of the road and its surroundings" (Smets, 2001). Smets understands that there is a natural order between a road and its context, which has been seriously upset by the specialisation of the road for intensive car use. Smets also states that motorways determine their context by means of their physical presence and the way in which their configuration interacts with the environment (by the movements it generates and the views this movement determines and by means of the global mobility and the improvement of accessibility). The disposition of road and railway connections in the landscape represents one of the concerns of conservationists, who consider infrastructures as the breaking of natural order and existing values.

In general terms, any type of transformation threatening the "usual mode of living", such as the case of motorways, gives place to the "policy of invisibility" which consists in hiding it behind a screen or, if possible, underground. Smets attributes this "mechanical reaction" to bury, cover or hide motorways to two factors: that we do not have a big knowledge of how to deal with complex urban pieces and that we consider that they alter the pre-existing "natural" order. This position prevents knowing and deepening the

eventual relationship between motorway and city, together with the experience of "inhabiting" this new landscape.

Inserting a motorway in the middle of the city is a complex problem which tends to limit itself to technical and financial aspects. On the other hand, the initial novelty factor and the perception of motorways as a factor of development and modernism (like post war Italian and German motorways) have given way to a critical view of this urban piece, considered by some authors as an element that alters and damages the urban fabric. The open discussion does not reach a consensus; there are cases of a great peak in the construction of motorways, cases in which they were transformed and even cases when it was decided to destroy them.

A notion reiterated in different voices is that of the success or failure of a motorway. Such "condition" is related with the different moments described by the process of configuration of this urban piece in time, with certain economic variables mainly related with the number of trips done along the road and, also, with the relationships of fitting or touching established with the surrounding environment.

In 1967, Lawrence Halprin[2] publishes Freeways, an interesting work that outlines the motorway landscape of the time. Halprin says that "When the freeways have failed, it has been because their designers have not paid attention to the potentiality given by their form and inherent qualities as works of art in the city. They have been thought of as a transport of traffic only, but, actually, they are a new form of sculpture of movement. In order to satisfy these needs, freeways must be designed by people with a great sensitivity not only about the structure, but also about the environment and their effect in the form of the city; and in the choreography of movement". (Halprin, 1967).

Halprin understands that through motorways or freeways, it is possible to mould the profile and form of the city and that, for this task to be relatively successful, it is necessary to give them character. This qualification comes from the context in which the structures are inserted, understanding this from their morphology and social impact. Thus, the motorway tracing and form emerge as much from technical considerations as from more intuitive value judgements, confronting the generic of the technical component with the specific proposed by the place.

In order to exemplify some ideas presented, we will review the case of the expressway through the Aterro do Flamengo (Picture 1). The urban project that defines the terrace of the aterro (or landfill) and the architectural occupation project are the work of architect Affonso Eduardo Reidy (1909-1964), of the Department of Urban Planning and City Council of Río de Janeiro. On the other hand, the author of the landscape project is Roberto Burle Marx (1909-1994) with the decisive participation of Lotta de Macedo Soares (Maria Carlota Costallat, 1910-1967).

The Aterro do Flamengo is part of a larger system formed by two ring roads ("rodadas") which surround the city of Río de Janeiro[3] and the Bahía de Guanabara[4] respectively. Two very relevant characteristics of this project are the link of the freeway to a park and the creation of a new landscape in charge of mediating the relationship with the city.

The terrace landfill of Bahía de Guanabara (between the Santos Dumont airport and the Botafogo bay) and the development of Flamengo Park go back to the fifties. The landfill came from the razing of the San Antonio hill, done in stages between 1952 and 1958. The projects were developed between 1954 and 1959 and the work was started in 1961. The Flamengo Park stretches for 7km approximately and has an area of one hundred and thirty hectares which include the gardens for the Museum of Modern Art of Rio de Janeiro (MAM/RJ) (1954), and for the National Monument to the Dead of the Second World War (1956), as well as the Salgado Filho square in front of the airport.

This wide park includes the Infante Don Henrique Avenue and a four-lane expressway in each direction (North-South) which is crossed by bridges in the circular section (Picture 1). It also includes a 1,500m long artificial beach, a strip for model aircraft, sport facilities and a tank for model boats and connects the centre to the South of the city at the same time.

Although done at different times, the aterro construction (done from the old Avenue Beira Mar) as well as the construction of the park correspond to Reidy´s plan. The project considers reclaiming land from the sea, thus avoiding the high cost of disappropriations to make the park and Avenue Infante Don Henrique, and valuating the land in the area because of their connectivity to the Centre and with Copacabana. Infante Avenue was finished in 1961. Flamengo Park, including wide traffic circulation lanes, various recreation areas, three

underground passages and five overhead walkways giving access to the beaches and parks was inaugurated in 1965.

Aterro do Flamengo is a response to the vehicle congestion experienced by Río de Janeiro between 1950 and 1960, a product of metropolitan expansion, densification and migration from rural sectors, elements that conspire against the communication of the town centre with suburban areas[5].

Affonso Reidy worked since 1929 in the Master Plan of the city, together with Donat Alfred Agache (1875-1934). During the forties, he looked for solutions for the central area. He was also in charge of urbanising the area created after the razing of San Antonio hill. The big urbanistic challenge of the Aterro consisted in satisfactorily solving the circulation problems, articulating commercial and residential zones and, finally, making the connection between the centre and the South area more efficient. Reidy also designed the MAM/RJ building, as well as the walkway to the museum, the kiosk and the games hall (Picture 2,below).

Flamengo Park is one of Roberto Burle Marx´s most important landscape projects. Burle is the author of Plaza Salgado Filho, one of his first works which stands out for considering different natural species, for the floor work (a mixture of stone and gravel) and for the sinuous dance of stone benches accompanying the flower beds. The gardens surrounding the MAM/RJ present an orthogonal outline, of rectilinear lines and flower beds described by some authors as a constructive phase of his work as a landscaper.

In Brigadier Eduardo Gomes Park, built in 1961, Burle articulates landscape projects for small secluded places and wide garden areas along the fast lanes of the Aterro[6]. Like a parkway, the Aterro do Flamengo creates a landscape associated to the road and takes in other movement systems associated to the park programmes. The landscaping and design mark the displacement and the fluency of the movements. The motorway, the systems to cross it and the park form a harmonious body that takes care of the relationship with the new urban front.

The "landscape horizon" of the motorway (of the city), is fundamental at the moment of building a large scale road infrastructure. Some of the keys that form the contemporary city are latent in the study of how a motorway approaches a city or how it crosses it.

It can be understood from the case described, that the positive aspects of a highway are: the motorway alters the space time relationship when drawing near or contracting the territory. This brings a certain freedom, since it allows us to choose where to live, where to work, where to study, etc. The motorway, a technical artifice that considers geometries and protections that allow increasing speed maintaining safety, makes trips easier and multiplies them. It forms part of the contemporary landscape from the moment it conforms a new landscape, which allows approaching the city in a different way, inaugurating a new cultural experience associated to mobility (through the parkways of Olmsted, The Strip of Las Vegas or the Aterro do Flamengo).

On the negative side, a motorway is sometimes transformed into a wound or a wall, bringing with it segregation, disconnection, lack of safety, danger and dirt. A motorway restricts mobility, since as it joins two separate points, it separates others, causing congestion and a certain economic segregation (those who pay obstruct the transit of those who do not). We frequently plan motorways without taking into consideration their interaction with their borders, underestimating the landscape, the connectivity, the capillary relationship with the surrounding streets and even the possibility of associating this operation to future building developments.

A motorway is not the same thing throughout time, but an element that evolves and becomes more complex, acquiring different features which have established different relationships with the landscape and the urban fabric. This operation has presented various forms of funding: public motorways funded by the State or by means of toll charges give way to concession motorways that transform the once citizen into a customer of the concessionaire.

As indicated above, the same urban piece is considered as a constituent part of the city by some and, by others, as an element that deeply alters the structure of the urban fabric. This double consideration of the road structure, first as a constituent element of the urban fabric and then as a piece that is foreign to it, is one of the issues to elucidate.

Given the relevance acquired by road infrastructure in the context of the network of urban motorways in Santiago, the considerations presented above take on a special interest. Researching and understanding how an important part of the city has been built and what latent

or explicit conceptions we have had on the subject, might reinstall the role of road infrastructure in the concert of the contemporary city, proposing the landscape (understood as a physical and cultural construction) as being in charge of integrating (or rather articulating) the relationship between a road infrastructure (segregated at times) and the city. m

NOTES

(1) Marcel Smets, Professor of Urban Planning at the Catholic University of Leuven, is the architect of the Flamish State since 2002.

(2) American architect, landscape designer and designer.

(3) The Rio de Janeiro ring road is formed by the Linha Amarela freeway, Lagos Barra street and the Avenue of the Americas. The Aterro do Flamengo is a bypass of Lagos Barra street, closer to the beach, which continues along Atlantica Avenue (Copacabana), Avenue Viera Souto (Ipanema), Avenue Delfin Moreira (Leblon) and Avenue Niemeyer, which joins Avenue of the Americas.

(4) The ring road surrounding Guanabara Bay is fored by the Presidente Costa E. Silva Bridge, the Avenida do Contorno, the Rodada do Contorno de Guanabara, the Rodada Santos Dumont and the Rodada Washington Luiz.

(5) Part of this phenomenon is explained by the growth of the "favelas" and the fast process of high rise buildings in the south zone of the city.

(6) The idea of the park was of Lota Macedo Soares, who, supported by the governor Carlo Laceda, gathered Roberto Burle Marx, botanist Luiz Emygdio de Mello Filho and architects Eduardo Reidy, Sergio Bernardes, Carlos Werneck de Carvalho and Jorge Machado Moreira. It is noteworthy that also the architect and engineer Berta Leitchic Hélio Mamede worked on the project. Later, in 1999 the 'heirs' of Burle Marx´s office restored and revitalised the *Aterro do Flamengo*.

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Archigram in Monte Carlo and the idea of an equipped landscape

Claudia Costa Cabral

"I like to think
(and the sooner the better!)
of a cybernetic meadow
where mammals and computers
live together in mutually programming harmony
like pure water
touching the clear sky.
I like to think
(right now, please)
of a cybernetic forest
filled with pines and electronics
where deer stroll peacefully
past computers
as if they were flowers
with spinning blossoms.
I like to think
(it has to be!)
of a cybernetic ecology
where we are free of our labors
and joined back to nature
returned to our mammal
brothers and sisters
and all watched over
by machines of loving grace.
The Realist ."
David Greene, All watched over by machines of loving grace, 1969.

"En Monte Carlo, cuando todos esperaban de nosotros algún tipo de máquina de bordes redondeados que deambulara por allí, hicimos una aparente nada. Solamente un pedazo de tierra."

Peter Cook

The ninth edition of ARCHIGRAM magazine (1970) had a packet of flower seeds attached. The publisher remembered the emergence of ecological questions and included expressions such as "survival" and "sustainment", stressing the distance from the mechanicist and productivist metaphors implied in the megastructures which had inhabited the first issues of the magazine, published in London since 1961 by the members of the Archigram Group (1961-1974): Peter Cook, Warren Chalk, Ron Herron, Dennis Crompton, David Greene and Michael Webb.

The dream of the technological garden, of the cybernetic forest for the electronic aborigine that David Greene proposed in 1969 with the poem "All watched over by machines of loving grace" would respond to the "crane logic" that continuously built and rebuilt Plug-in City, the disposable city that Peter Cook had drawn in 1964. This implied reviewing the iconography of the machine and the consumption that until then had distinguished Archigram's view.

Archigram´s first interpretation for the question of consumption in the society of affluence, synthesised in the concept of "expendability" (or ability to discard), supposed total ignorance regarding the inevitable ecological implications of dissipation, a subject that would become unavoidable in the course of a decade. For Archigram, the question to be discussed was always the implication between technology and architecture. The transformation of the former, with the emergence of electronic systems,