



UNIVERSITY OF

LIVERPOOL

Faculty of Humanities and Social Sciences

School of Architecture

Emancipatory Horizons: The Possibility of a Revolutionary Architectural Practice

Thesis submitted in accordance with the requirements of the University of Liverpool for the
degree of Master of Philosophy

by

Patricio Andrés De Stefani Casanova

February 2013

Supervisor:

Dr Andrew Crompton

In memory of Ramiro De Stefani Martinez
(1919-2012)

For Juan Borchers and my family

Emancipatory Horizons: The Possibility of a Revolutionary Architectural Practice

Patricio De Stefani

Abstract

Architecture has always been tied to social change, but also to social reproduction. Architects have sought to challenge social structures before, but this tendency seems to be in utter decline, is an emancipatory practice of architecture still possible? What prevents architecture from engaging in radical social and spatial transformation? To find out if it can still have a progressive function within society, its material relation to capital must be unravelled. The active human body, abstract labour, abstract space, fixed capital, landed property, and rent are crucial concepts to understand the spatial logic of capitalism. This research examines these theoretical issues through the historical case of UNCTAD III building in Chile, one of the last attempts to challenge the capitalist production of space. Through this case the difficult questions concerning the role of architecture within capitalist society and what are the possibilities for an alternative practice in our current conditions can be addressed. A radical alternative through architecture must acknowledge both its autonomy and dependence from the cities produced by capitalism if it wishes to address concrete change.

To examine the function of architecture within the capitalist mode of production in its general or abstracted form, and assess the possibility of an architectural practice which actively confronts such function, constitutes the main objective of this research. A secondary aim is to analyse a concrete historical example of an antagonist relation between architecture and capital, in order to test the feasibility of my theoretical hypotheses. The achievement of this research has been to examine (theoretically and historically) the relations between architecture and capitalism in order to realistically confront the question of its political role in the struggle for the transformation of this mode of production.

Keywords: Capitalism, Production of Architecture, Abstract Space, Practice, Utopia, Revolution, Emancipation

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Acknowledgements

I would like to thank to all the people who have contributed directly or indirectly to the thoughts expressed in this research, first of all to my parents, Vilma Casanova and Patricio De Stefani Torres, for their restless support and concern, my grandmother Gloria Cruz, and my family for their support during all these years, Pablo De Stefani, Viviana De Stefani, Ramiro De Stefani, Constanza De Stefani, Ana Casanova, Daniel Casanova. Many thanks to my supervisor, Andrew Crompton, for his valuable discussions and suggestions. My deepest acknowledgements to my friends in architecture and life, Rodrigo de la Cruz, José Llano, Andrés Soriano, Fabrizio Fabio, Patricio Echeverría, Carlos Caviedes, Rafael Badilla, Angel Carrillo, Alan Martinez. Many thanks to my friends and comrades in Liverpool for their discussions and concern, Luke Staunton, Jack Hogg, Sophie Cleaver, Emma Davies, Kevan Feshami. To my friends in Chile, Sara Muñoz, Carlos Guerrero, Camilo Vergara, Juan Spier, Gladys Munita, and all those who have supported me throughout my life.

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Introduction

Sooner or later in his formation or practice, every architect is compelled to confront a peculiar dilemma: to project the possible he has to think the impossible. In other words – and perhaps without knowing it –, he has to imagine something that appears impossible in order to make way for new possibilities. If he avoids this, his visions and designs will be thwarted by the present: they will either endlessly repeat the already existing, or they will trivially modify it, making it appear as truly new, or else, they will nostalgically regress to a longed past. They will not be projections in the strict sense; they will fail to envision an alternative. In challenging what appears to be possible, the architect realises the fact that his ideas are not really his, that he lives within a social reality in which he plays a role just like anybody else. His perceptions and thoughts about that reality are conditioned by his place in it, and that is the actual source of his views on architecture, on the issues it should address more urgently, the objectives it should aim to, and the most suitable methods to pursue those objectives.

This internal conflict between what appears to be possible or impossible within the spatial and temporal horizon of a given society reveals a permanent tension within architecture: on one hand, it cannot avoid the projection of a possible state of things, hence envisioning a transformation of a given reality; on the other, it is the expression of everything that is fixed in that society: its social structure, property relations, the state, and so on. This research examines this dialectic with the aim of assessing the possibilities architecture has to radically *transform* an established reality rather than passively *reproduce* it. This central inquiry forms the first stage of a broader research project which will look to set the basis of a joint architectural and political theory and practice. It will argue that one of the most decisive things in a work of architecture is the way in which the architect positions himself in relation to the world he inhabits. The architect needs to be primarily a *situated human being*, fully orientated and aware of its role in history (time), space, and society. In order to do this, three main questions are raised: Where do we stand today? What is to be done? How should it be done? Each of these questions points towards different research stages, of which the present research corresponds to the first one: to know in what kind of reality we live in and what is our position and role in it, we have to critically *analyse* it. To assess the possibility of an architectural practice which aims to be not only critical towards our current social system (global capitalism) but to have an active role in striving towards its radical transformation, an analysis of its function within that system is required. Therefore, the main task is *the analysis of the role of architecture within capitalism with the aim to demonstrate their structural relationship and assess the case of the building for the Third United Nations Conference on Trade and Development (UNCTAD III) in Chile as a concrete attempt to challenge that relationship*. In what follows I will briefly review the

current state of knowledge on these issues and identify any gaps or unanswered questions; then I will raise the main questions and introduce the case study; finally I will review the objectives and methodology, and introduce an overview of the research structure.

I

To find out if architecture still can have a progressive function within capitalist society it is necessary to unravel its concrete relation to capital. As I will explain below, the most suitable way to do this is by: first, to look for the abstract or purest form of this relationship, rather than through historical inquiry; second, to put the current state of architectural practice in perspective by analysing a crucial turning point in its history. The first premise presumes a reasonable knowledge about architecture's relationship to any type of society – i.e. its universal relation to human practice. It follows then, that the second premise must subordinate to the first, namely, I will proceed progressively from the abstract to the concrete. The changing relations between our human environment and the practices that ceaselessly produce it seem to be at the core of relatively recent inquiries about space, economics, and politics. In general, these works focus on the fact that architecture stands between us and society-nature, that is, our relations as social and individual beings are always mediated by the artificial world we ourselves have created.

From the standpoint of phenomenology, the works of Van der Laan (1983; 1960; 2005), Uexküll (n. d.; 1957; 1926; 2010), and Borchers (1968; 1975) attempt to construct an ontology of architecture – i.e. a theory of its fundamental foundations, beyond historical or contingent considerations. This phenomenological and biological approach focuses on human perception, action and the role of the body in shaping our world. Lefebvre (1991; 2004) has also attempted to restore the human body as the producer of space and architecture through its activity. Relatively recent works on this matter, particularly contrasting it with the impacts of consumer and image culture, have been treated by Pallasmaa (2005; 2007; 2009) who discusses and critiques the visual and self-referential bias of contemporary architecture. Insights by Marx (2011) and Heidegger (2011) also have relevance from the standpoint of how the labouring human body grasps the world around it in order to continuously reshape it to fit his needs.

During mid-twentieth century a number of theories related to the role of space, cities, and architecture within capitalist society have critically questioned the different attitudes architects have adopted in relation to the overall reality of capitalism. These issues have been broadly investigated in the social sciences. In Marx's (1968; 1859; 2011) theory, *historical materialism* provides a framework for scientific analyses of society through a dialectical method. Drawing on Marxian political economy, the work of Lefebvre and Harvey have reclaimed the relevance of space in the reproduction of this social system against earlier and more orthodox theories which tend to neglect its significance. The work of Lefebvre (1991; 1976; 1976; 1983; 2003) has been a major source for geographers,

planners and architects, as well as social movements. He poses critical questions about the nature of the built environment and introduces a history of abstract space, or the space produced by capitalism. Of particular interest is his attempt to develop Marx's ideas into a theory of the political economy of space. Also following Marx's insights, Harvey (1985; 2005) develops a theory of capitalism's uneven geographical development, in which he examines the role of urbanisation processes in sparking or deferring economic crises.

The wide field of Critical Theory, beginning with Marx, Weber and Freud, followed by Western Marxism and the Frankfurt School, to Cultural Theory and Cultural Studies, put at the front issues concerning the relationship between ideology and social practice. More recent theories focus on the problem of space as it has often been neglected by more classical approaches. Jameson, for example, analyses postmodernism as the cultural form of capitalism, and also the role of utopia and temporality in politics, mass culture and architecture (1991; 1997; 1998; 2005). Harvey (1989) also analyses these issues focusing in the dialectic between base and superstructure, particularly in the passage from modernity to postmodernity. Lefebvre (1995) critically analyses modernity in all its ambiguity, both politically and aesthetically. Eagleton (1991) and Žižek (1994) reinstate the theory of ideology, particularly in its 'everyday' level or the fetishism of market relations.

The radical critique of various architectural ideologies and their role in the reproduction and legitimising of capitalism has been put forward by Tafuri and Aureli. From the historical perspective, Tafuri (1998; 1976; 1980) has been known for posing a radical critique of modern as well as postmodern architectural ideologies. More recently, Aureli (2008; 2011) has made relevant contributions to the relations between politics and architecture, first by relating the Italian autonomist Marxist movement from the late 1960s to the architectural theories of Aldo Rossi and Archizoom; and second, by establishing the role of the formal and the project in relation to the political dimension of architecture. Leach (1999) and Le Corbusier (1986) have addressed directly the relationship between architecture and revolution. The former from the standpoints of Western Marxism and Foucault's theory of the relation between space, power and knowledge; and the latter from a reformist yet ambiguous approach to the role of architecture in a social revolution.

II

There are several issues which are not clearly stated or addressed in the above mentioned authors. With its focus on language, discourse and the relationship between power, knowledge and space, the radical critique of architectural ideologies fails to grasp the level of the concrete bodily experience of architecture and its critique, and it often remains within an idealist approach to architecture's dilemmas. On the other hand, phenomenological approaches, in their attempt to restore the human body into a non-alienated or non-reductive architectural experience, frequently bypass questions pertaining social practice and history, falling into the utopian claim that the body can be restored solely by the lessons of the humanist, tactile and multisensory architecture from past ages

(see Jameson 1997, 252-54; 1998, 442). Critical and cultural theories do address the social problematic, but they often neglect the relevance of economics and material relations in the production of space/architecture. This problem is tackled by unorthodox Marxist political economy, yet often missing the phenomenological question or underrating the ideological level. What is often missing from all of these fields is the level of the concrete work of architecture addressed from a social and material standpoint. Phenomenology misses the social aspect, whereas critical theory and economics miss the perceptual side of the analysis. Consequently, several questions come to the fore, for example: How does a work of architecture affects our perception and social relations? Where lies the social and political dimension in a work of architecture? Is the concrete relation between architecture and capital limited to 'external constraints' over an otherwise 'free' architectural practice? or is it embedded in its internal production process?

It would seem that the question which logically articulates these enquiries is 'can there be a revolutionary architecture?' – i.e. in the same way as one might think of a revolutionary politics, movement, or even press. However, formulated in this way it conceals an underlying problematic: Can architecture be political in itself? Can architects take political action through their architecture? Would this require reducing it to a political instrument? Is it not already one? Furthermore, revolution is a complex social process incorporating many relations at different levels; hence it cannot be said to be simply contained in the internal properties of an object. A refined formulation of the question would be *can there be a revolutionary architectural practice?* In this way the focus is displaced from an object towards the social practice responsible for its production.

These questions can be reformulated and organised along the lines of architecture's internal contradiction between change and replication identified above. If architecture is inherently tied to envisioning a future, then it always entails a *transformation* or else a *reproduction* of an existing reality. To be sure, this is a highly abstract formulation – for both poles denote 'pure extremes' which are nowhere to be found in concrete reality – that nonetheless allows us to circumscribe an object of study. Before questions of revolution and reproduction can be formulated, a key question about possibilities and limits must guide and structure this inquiry: facing global capitalism and the allegedly demise of any feasible alternative to it, what should be the role of architecture in the cities produced by capital? After the decline of modern architecture along with the political ideals which sustained it, *Is an emancipatory practice of architecture still possible?* From this, two logical options open before us: if the hypothetical answer is No, a second question can be conceived: *What prevents architecture from engaging in radical social and spatial transformation?* And if the speculative answer is Yes, a third question can be logically formulated: *Can architecture play a role in social transformation, how?*

III

The criteria for selecting the case study are a combination of several factors. The first premise is to concentrate on a particular practice or work of architecture, since the main question points towards the sphere of design rather than broader urban issues – though in no way bypassing the interaction between them. The initial problem was to find a piece of architecture which either embodies capital accumulation (industries, malls, corporate offices, suburban villas, etc.) or challenges it (workers unions, constructivist buildings, etc.). However, this typological approach narrows down the problematic to a point in which it assumes that such thing as a capitalist or non-capitalist architecture can coexist within the same mode of production, which it's a claim far from accurate, if not ideological. Nonetheless, this approach cleared the way for the problem of whether to focus on architectures which aim to reproduce capitalist space, or the ones which aim to transform it. The first option would give us an accurate understanding of the role of space/architecture in the accumulation of capital; whereas the second would directly address the issue of spatial emancipation or revolution. I followed this latter option for its evident proximity to the main question. The next step aimed at locating a particular historical and geographical setting, and so narrow down the possibilities. Three key historical periods were selected: 1) the mid-eighteenth century neoclassical and utopian architecture of the bourgeois revolutions; 2) 1920s soviet constructivist architecture; and 3) late 1960s radical utopias. The third period was favoured on account of being relatively recent and, for that reason, less studied than the previous ones. However, there is a more relevant reason for having selected this particular period: it represents a conjunctural moment in the development of twentieth century capitalism, and this fact was widely reflected in the cultural (the transition from modernism to postmodernism) and political realms (1968 revolts). In the architectural sphere, key programmes were set up (postmodernism, techno-utopianism, phenomenology, deconstructivism, regionalism, etc.) which laid the basis for current developments (biomorphism, parametricism, sustainability, etc.).

The UNCTAD III building was finally chosen due to two main reasons: first, it was a concrete attempt to confront the capitalist production of space during a pre-revolutionary process in Chilean society; second, my own proximity with the building and its history since I was born and raised in Santiago, and I've witnessed its various metamorphoses through time.¹ UNCTAD III was built between 1971 and 1972 in Santiago de Chile, during the government of Salvador Allende. It symbolized a great collective effort, built in just 275 days on the occasion of the third session of an important UN International Conference² during which world leaders had the opportunity to see what was then termed the 'Chilean road to socialism'. Its design was directly influenced by the premises of the Bauhaus and Constructivism. After the 1973 military coup, the building was turned into the headquarters of the Junta, then part of the Ministry of Defence, acquiring all kinds of repressive and authoritarian associations. Finally, in 2006 was partially destroyed by a fire, only to be rebuilt in 2010 as the visual and flattened out spectacle of the liberal-democratic coalition in power at that time.

IV

To examine the function of architecture within the capitalist mode of production in its general or abstracted form, and assess the possibility of an architectural practice which actively confronts such function, constitutes the main objective of this research. A secondary aim is to analyse a concrete historical example of an antagonist relation between architecture and capital, in order to test the feasibility of the theoretical hypotheses. The study of this relationship –from the standpoint of practice – has not been a major preoccupation for architectural theorists, let alone practitioners, and this is in sharp contrast to the insights provided by social sciences such as geography or sociology. Accordingly, the study of these theoretical and historical issues will serve to develop an unusual area of architectural knowledge and it will contribute to the formation of an alternative and critical practice of architecture which will hopefully aim to concretely transform our current material conditions instead of merely replicate or reinforce them.

In order to answer the main questions, a conceptual framework has been developed to compare some of the attempts architects have made to change social conditions under capitalism, and the reasons for the decline of this attitude in the last forty years. The research has a qualitative and experimental character, and the analysis is conducted according to a dialectical method of argumentation, namely, categories and concepts were developed focusing on processes of change, their inner relations, and contradictions within their unity. This method was chosen due to its critical edge and its suitability to the topic. The research method employed has two stages: 1) critical interpretation of available literature on the topic; 2) critical interpretation of a work of architecture relevant to the topic (UNCTAD III). The first stage is carried out through library study, mainly at the University of Liverpool (personal books and Sidney Jones library). The second is based on the review of written material, archives, drawings, plans, photographic material, interviews, and publications from the early 1970s. It is worth mentioning that I have personally toured the building in more than one occasion and I also had a considerably amount of historical records at my disposition, courtesy of the curators of a recent plan to recover the building's missing artwork. Also informing the social background, I have reviewed historical books and journals. All of these sources are part of my personal library, were obtained online, or through the help of Chilean colleagues.

V

The general structure of the thesis is composed by three main parts. Both the totality and the component parts are organised in accordance to the method of inquiry, starting from elemental theoretical concepts down to more complex historical issues – i.e. from the abstract to the concrete. Each part has a distinct function within the thesis, the first deploys mainly a theoretical argument, the second is predominantly historical, and the third is based on a practical and concrete approach.

In Part I, I deal with both the fundamentals of architecture and of capitalism, seeking to unravel their structural relation starting from its basic defining concepts. In order to do so, I seek to relate the phenomenology of architecture to a materialist approach to the question of human praxis. In phenomenology, architecture is acknowledged as a mediator between man and nature (Van der Laan 1960, 7; 1983, 11; Borchers 1968, 33; 1975, 182); whereas in historical materialism the primary mediator is human practice itself, since it is human labour the fundamental activity by which man transforms nature, producing a human world out of it, and which he then constantly modifies according to the development of his productive forces (Marx 2011, 197-98). A further integration of these approaches requires a deepening of phenomenology into the insights of theoretical biology (Uexküll 1926), and a progressive incorporation of the role of social relations in the perception and production of architecture (see Chapter 2). By relating a specific definition of the architectural *object* – in terms of a scheme of action rather than a sensory *thing* – and Marx's theory of value – as 'crystallisation' of abstract human labour – I seek to understand their connection and mutual influence as the foundations upon which the capitalist production of architecture rests (see Chapter 3). A restoration of the human body and use-value over the primacy of the fetishism of commodities and exchange-value requires a materialist approach to architecture in which social practice constitutes the actual source of architectural ideas rather than the other way around.

This approach compels us to understand, in Part II, both space and architecture as social products subject to the same laws of motion which operate throughout the capitalist mode of production. They have precise social functions as *means of production* and *subsistence*, and also as what I have called an *objective ideology* (see Chapter 4). How can the kind of architecture that capitalism produces be characterised? Built upon the historical process of abstraction of labour and space – i.e. the primitive accumulation required by the establishment of bourgeois society and its property relations – psychologists, art historians and architectural theorists developed the modern concept of space towards the late nineteenth and early twentieth century. This concept presented 'space' as a neutral and autonomous void/volume divorced from the social and political practices which produce it. Hence, this was an ideological (misleading) conception of space from the outset. Further attempts by the Bauhaus and part of the constructivist movement to incorporate the social dimension through functionalist (and allegedly Marxist) theories failed to address the role formalism (and its degraded form, aestheticism) plays in the fetish character of capitalist space (Tafuri and Dal Co 1980, 173). Indeed, the reduction of space to this apolitical, visual-aesthetic, or purely empirical state is no mere ideology, but fulfils a precise practical function: to ensure the reproduction of social relations of production (Lefebvre 1991, 317; 1976, 11). This is not achieved without major problems though. Contradictions internal to the development of capitalism (notably between capital and labour) are increased at the spatial level as a simultaneous tendency towards an absolute homogenisation and fragmentation of space. Architecture becomes a *real abstraction* (like money or capital), an apparently autonomous and rational object which aspires to homogenise whatever stands on the way of the forces of accumulation (the state and the world market), paradoxically by

means of fragmenting and subdividing space according to their requirements (see Chapter 5).

If space/architecture can serve political and economic purposes by reinforcing the reproduction of production/property relations, could it serve as a device to confront these relations? Does not this depend on the total transformation of the social practices that produce it in the first place? These questions require distinguishing between the *politics* of architecture and its proper *political* dimension. My aim is to demonstrate that architecture is intrinsically political, not in the narrow sense of its political use or interpretation, but rather due to its role as mediator between human beings, nature and the human world. The political is a universal or formal condition, whereas politics is particular and contingent (Jameson 1997, 243; Lefebvre 2003, 61). This distinction is expressed, in architectural terms, through the dialectic between *project* and *design* (Aureli 2011, xiii, 30ff), which further corresponds to that between *object* and *thing* mentioned above. The political dimension can only be grasped at the abstract/internal level of objects, namely, in the way a project fixes the *mode of relation* between architecture and the social space which produces it (e.g. the city). A further distinction between the concept of the political and that of ideology must be made in order to clarify their relation to architecture. Ideology, for example, is defined here not so much as a mental construction, but as something which operates throughout social practice, hence in architectural practice. Ultimately, my aim is to show that architecture can be neither political in itself (as the direct embodiment of a particular political ideology), nor can it be political on account of its shifting political uses. However, this does not prevent the notion that it can be consciously (politically) determined at the substantial level of the architectural project (see Chapter 6).

Finally, in Part III my aim is to assess the theoretical framework through a materialist analysis of UNCTAD III. This part is divided into three chapters which as episodes in a story, attempt to reconstruct the process of its conception, building, and functioning. This process is presented as a dialectical interplay among three historical turning points: Utopia (1971), Tragedy (1973), and Farce (2010).³ In *Utopia* (see Chapter 7), I analyse the economic and political background of the epoch and its influence on the conception and realisation of the building. Two levels of analysis are introduced: the building as result and condition of a *concrete practice*, and as an *ideological representation*. In *Tragedy* (see Chapter 8), I examine the social pre-conditions of the military coup which ended the Chilean revolutionary process and turned UNCTAD III into the Junta's main headquarters – a sort of strategic surveillance centre similar to a war bunker. In *Farce* (see Chapter 9), I recount the building's sad fate after the end of 17 years of dictatorship: in 2006 it was partially destroyed by a fire due to lack of maintenance, and later rebuilt according to the new dictates of an abstract and highly aestheticised architecture. Several questions arise from this historical analysis which I seek to answer according to my theoretical premises. For example, what was the relationship UNCTAD III established with the city and the wider social background of the period? What is its intrinsic political dimension? What was its role in the revolutionary process started by Allende's government? If after the coup the building was easily turned into a repressive device, where did its emancipatory potential lie?

After examining this unique case, which shows the history and defeat of an openly political architectural practice – precisely at a turning point in the general history of architecture – I can assess the possibility that a politically committed practice of architecture might still be possible within the coercive laws of capitalist accumulation. As every other form of social practice, architecture might have a significant role to play in a process of social revolution which points towards the emancipation of the working class from the abstract domination of capital and its political form, the state. Although hasty accusations of utopianism might be raised, it must be remembered that sometimes what is truly utopian is not the impossible, but the endless reproduction of the possible. It might certainly be that a future non-capitalist or ‘socialist architecture’ cannot be thought in advance, and that it is a hopeless endeavour. In that case one may ask if this is not a rather false problem. It might be that the real issue at stake turns out to be much more modest: not the imagining of impossible and utopian architectures on the desk, but the long struggle – on the ground – for the conscious organisation and revolution of its practice.

Literature Review

The question about the possibility of a politically committed architectural practice has been approached from a number of different sources and disciplines, particularly during the second half of the twentieth century – e.g. geography, sociology, anthropology, cultural theory. A closely related topic which underlies these is the changing relationship of architecture to society throughout history, and particularly, its relationship to our current type of society (global capitalism). Despite the fact that in the last forty years capitalism has prodigiously expanded to an unforeseen scale and has permeated nearly all aspects of human life, architects in general seem more comfortable than critical towards it – witness recent developments in multinational architectural firms and the academic establishment. The technological possibilities opened up by this process are welcomed in rather positivist fashion, without taking fully into account its social and economic underpinnings and its impact. The lack of architectural studies which systematically address these issues could be seen as a symptom of the very form of the relationship under scrutiny.

As stated in the introduction, the main question cannot be answered without first clarifying architecture's general relation to capitalism mentioned above. However, this task presupposes a sufficient understanding of architecture's relation to any type of society, namely, its relation to human social activity in general. Clearly, a historical approach to this problem would be far beyond the reach of this work, for it would probably require a comparative study of the evolution of architecture since the emergence of capitalism. As already explained, I will follow a similar path to that taken by Marx (2011, 12-13) – proportionately speaking – in his study of capitalism. This corresponds to the use of theory as a tool to 'abstract an object of knowledge' (Lefebvre, intro, 77) and, only secondarily, the use of history. The reason for this is simple: my aim is to find the structural, inherent relationship between architecture and capital beyond any concrete and historical form that this relationship has assumed. I'm looking for the abstract or general form of this relationship – its 'pure state' if you like – in order to assess the possibility of its future transformation, purged from external contingencies. This decision puts certain constraints upon the literature to be consulted and its organisation. The first premise is that in order to study the relationship between architecture and capital in the abstract, an understanding of the *process of production of architecture* beyond its disciplinary boundaries is needed. This implies submitting architectural knowledge to a profound ideological and practical critique which is at the same time a political and ethical one. For reasons discussed below, it is argued that this critique cannot be effected by architectural theory itself. Thus, instead of immersing into social and economic theory through the lens of architectural discourses,

my aim is to use these fields to put architectural knowledge in a position able to bring forward its underlying contradictions – i.e. conflicts internal to its social production.

To this purpose I will review four fields of knowledge which in my view best suit the purposes outlined above, plus the specific literature required by the case study. Within these fields I shall distinguish between primary (directly related to the topic), secondary (critical/methodological), and tertiary sources (compilations). The fields were selected according to two main criteria: first, the level of analysis which they represent; and second, the critique they pose onto each other. The four fields in question are: the *Phenomenology of Architecture*, *Marxist Political Economy*, *Critical Social Theory*, and *Contemporary Architectural Theory*. The first field aims at a perceptual analysis and, on this base, poses a critique of mainstream architectural theory; the second puts forward a material (social) analysis which stresses a critique of mainstream social and economic theory; the third points towards an ideological and social analysis which critiques phenomenological approaches; and the fourth mainly displays a critical and ideological analysis of architecture.

Phenomenology of Architecture

Since mid-twentieth century an area of architectural theory has consistently developed around phenomenological and biological questions (see Van der Laan, Borchers, Norberg-Schulz (1971; 1980), Pallasmaa (2005), Holl, Pallasmaa and Pérez-Gómez (2006). These theories attempt to construct an ontology of architecture, that is, an understanding of its fundamental foundations beyond historical and contingent understandings. They draw extensively from philosophical phenomenology (e.g. Kant, Husserl, Uexküll, Merleau-Ponty, Heidegger, Bachelard) focusing on the role of the human body in the sensory perception of architecture. Although not widely known, the works of the Dutch architect Hans van der Laan pioneered this approach (see Van der Laan 1960; 1983). He argues that architecture mediates between the human body and nature, and that its fundamental role is to act both as a substitute of the body towards nature, and a substitute of natural space by the creation of an interior space (Van der Laan 1960, 7). From studying how the human body responds to architecture's proportional systems, Van der Laan discovered and developed the *plastic number*, which he proposed as a specifically architectonic number. Later developments would discover an arithmetical series based on the plastic number called *padovan sequence* (see Padovan 1994). Almost simultaneously, the Chilean architect Juan Borchers – mainly known among Chilean and Spanish theorists – developed a full and unitary corpus of theory (see Borchers 1968, 1975) starting from his interpretation of Van der Laan's work, and expanding it through numerous and varied sources (Kant, Husserl, Uexküll, Wittgenstein), and proposing his own arithmetic series – based on the plastic number and the constant limits of human perception – named *cubic series*. Both of these works pose a radical critique of modern architecture, its reliance on abstraction and its shattering of architecture and the human body. They conceive architecture as both the result and condition for the deployment of the human body and its activity. For a critical assessment and connections between these works see Perez-

Oyarzun, De la Cruz (2000), (Montaner 2008, 57-59). Two main objections can be done to these approaches from the standpoint of the research question. First, they often reduce or bypass the relevance of social relations, and second, they can easily regress into reactionary forms of utopianism in which the problem of capitalism's alienating built environment can be overcome by its 'humanisation' and the restoration of sensory perception (Jameson 1997, 252-54).

Marxist Political Economy

The basic framework for the analysis of capitalism is based in Marx's critique of classical political economy, French utopian socialism, and German idealism. The theory of *historical materialism* provides such a frame by developing a *dialectical method*, focusing on processes of change, inner connections, and contradictions within history and space (Marx 2011; 1859; Marx and Engels 1968). Later developments along the lines of unorthodox Marxism have acknowledged its limitations while at the same time introducing new concepts of great relevance for an understanding of the role of cities and architecture within capitalism. This is the concept of social space and its production, two aspects which cannot be understood in isolation from each other. Lefebvre (Lefebvre 1991; 1976; 2000) is considered the father of this approach – sometimes referred to as the 'spatial turn' within the social sciences (Warf and Arias 2009). Indeed, Lefebvre's efforts focus on in developing a unitary theory of the production of space mainly under capitalism – not exclusively though. A part of this theory consists in an outline of a *political economy of space* which is of great importance to this inquiry since it analyses the role of space in production by filling the conceptual gaps left by classical Marxist theory. In addition, Lefebvre's historical account on the emergence of the abstract space of capitalism is especially relevant for our analysis of modern architecture (Lefebvre 1991, 229ff). Also drawing heavily on Marx and Lefebvre, geographer David Harvey (1985; 2006; 2005; 2000) portrays a theory of urbanisation under capitalism and the contradictions in what he terms as the geography of capitalist accumulation processes. Critical towards the limitations of Lefebvre's work, Harvey describes the ways in which capital produces a built environment for enhancing the production and accumulation of surplus-value, while at the same time this environment becomes a barrier for further accumulation (Harvey 1985, 60-61). Finally, Gottdiener (1985) critically analyses the contributions of these and other authors on the subject of the social production of urban space. As Gottdiener (1985, 165) argues, the application Marxist political economy to the analysis of space has several limitations (e.g. its reductive models of class struggle) which must be transcended by the incorporation of new conceptual tools such as those introduced by Lefebvre and Harvey.

Critical Social Theory

The Frankfurt School along to so called Western Marxism drew heavily from the traditions of Marx, Weber, and Freud, in order to develop a critical approach to society with the explicit aim of its revolutionary transformation (Milner and Browitt 2002, 57-58). They addressed key questions related to the critique of ideology and the role of the cultural

superstructure in the development of capitalism – attempting to fill the gap left by Marx, Engels and the first generation of orthodox Marxists. Late developments include the emergence of cultural theory and cultural studies as relatively new fields of social and cultural analysis which focus on the role of urban space, the media, and culture industries within the global or multinational stage of capitalism. For instance, Jameson (1991; 1997; 1998; 2005) theorises the transition from modernism to postmodernism as the overall cultural forms which capitalism assumes at different stages in its development. Lefebvre (1995) examines the dawn of modernity and modernism in the wake of critiques of Stalinism, orthodox Marxism, and the 1968 revolts. The theory of ideology and its critique is also relevant from the standpoint of space, is space the projection of an ideology or the outcome of productive activity? Although not directly engaging with the concept of space, Žižek (1994) and Eagleton's (1991) theories of ideology are important in that allow us to understand the dialectical interplay between what can be considered architectural ideology and architectural practices. Some of the shortcomings of this approach are that they sometimes miss the economic analysis necessary to understand a definite cultural and ideological production. However, critical analyses of society remain a powerful tool to unmask the workings of various bourgeois ideologies designed to legitimate relations of exploitation.

Contemporary Architectural Theory

Critical architectural discourses began to emerge out of the crisis of the modern movement and the necessity of adequate interpretative models to give an account of the new historical situation. This was the task of Tafuri, who rejects the 'instrumentalisation' of critics and historians to fit the requirements of some new architectural *programme*. Instead, the only valid attitude for the historian is to ruthlessly denounce all architectural ideologies as so many mechanisms to ward off anguish (Tafuri 1999, 1). Furthermore, Tafuri examines difficult questions on the relationship between revolution/emancipation and architecture. Jameson (1998) has often been engaged in architectural debates, examining Tafuri's texts by locating them into their wider social context. These issues are also addressed by Leach (1999) and Le Corbusier (1986) from a quiet different standpoint to Tafuri and Jameson. The political dimension of architecture has been recently examined by Aureli (2008; 2011) both in relation the radical utopias of the 1960s, and to architectural strategies to critically confront the forces of urbanisation (Aureli 2011, 41). Even in its most critical developments, architectural theory seems to bypass the question of its own social production and therefore its concrete relation to capital. One the reasons why this is the case, is its inheritance of nineteenth century idealism. Hence, a materialist approach will pose several questions on the way architects work and the outcome of that work, in other words, questions about its process of production.

Case Study

The literature for the case study consists mainly in drawings, plans, interviews, journals (e.g. Auca, Invi) and publications from the early 1970s onwards. Also informing the wider

context, relevant Chilean authors such as Raposo, Valencia and Raposo (2005), Vitale (1998; 2000), Moulian (2006), and Rist (2008) provide a critical assessment of the complex social and political situation in which UNCTAD III was designed and built. The aim is to reconstruct the historical background of the building in order understand the nature of the practices which produced it.

In summation, all of these fields either explicitly or implicitly adopt a critical stance towards each other. This suggests their particular limitations in addressing the research problem. For example, Marx's political economy does not directly address the question of space and so is complemented by social and critical theory which argue explicitly in spatial terms and not only as a marginal issue. The same holds for phenomenology and architectural theory. However, the level which is often missed or misrepresented even by architectural theory is the level of the work of architecture itself. Political economy and critical theory have frequently addressed the problem from an urban standpoint, and as critique of urban planning. Similarly – and rather surprisingly – architectural theory and phenomenology portray a useful but still limited understanding of the work of architecture. The former by giving priority to architecture as language, discourse, and representation; the latter by diminishing or avoiding its social and political dimensions. Therefore, the task must be to recompose and complement each of these fields with one another in order to arrive at a critical and realistic view of the place that the work of architecture occupies within the global system of capital.

Part I
The Materialist Basis of Architecture

1

The Relations to Nature

The Natural Order and the Passive Body

Nature has an order. Its various cycles develop according to more or less invariable laws which are the object of the natural sciences. Viewed in itself, as a pre-human order, it is external to and independent from human knowledge and praxis, a world which is the product of no conscious thinking or action, a 'blind and non-conceptual occurrence'.¹ However, human beings have had to dwell within natural space from the beginning – just like any other species on earth – thus nature is the primary source of all human dwelling, 'the place from which man is absent is also the place where man begins, taking shape and moving ahead of himself' (Lefebvre 2011, 138).

Understanding nature in itself, as an absolute, gives no clues to its relation to human beings, 'what else can I say about it, other than that it exists?' (Lefebvre 2011, 136) Instead, a conflict should be identified – or ambiguity if you like – *within* the concept of nature itself, for 'it happens that we use the same word to designate nature in man (human nature: instinct, need, desire) and nature without man, before man, outside man' (Lefebvre 2011, 134). Attempts to draw a clear-cut distinction between man and nature have been developed since classical metaphysics and later, eighteenth century bourgeois thought. These start to fall apart as soon as the relation is grasped dialectically, which means to see nature *in* man and vice versa, without confusing them (Latour 1993, 53-55). This is the approach taken by Marx – a bit in a fragmented way – and recognised by Lefebvre. For the latter nature can be understood either as *external* (pre-human) or as *internal* (within-human). Man is dependent on nature, but nature is independent from man.² As *external*, nature appears deceptively as something 'pure' and empty, thus inaccessible. As *internal*, corresponds to our natural limits and capacities as biological and sensory beings. However, nature *within* man (human nature) is always something which is emerging as half-nature and half-antinature, for it is only by means of abstraction that men have become men at all, only by transforming nature into something which goes beyond it without being completely separated from it.

If we imagine nature as the external world, in an ideally – and it could be only in that way – pure, pre-human state, and suspend any human (social) mediated conception about it, we can begin to understand why is it that human beings cannot inhabit the earth in the same way than the rest of species – leaving aside the obvious fact of reason and intellect for the

time being. According to the Dutch architect Hans van der Laan, natural space is *earth-centred, unlimited, and homogeneous*.

The space that nature offers us rises above the ground and is oriented entirely towards the earth's surface. The contrast between the mass of the earth below and the space of the air above, which meet at the surface of the earth, is the primary datum of this space. On account of their weight all material beings are drawn into this spatial order, and live as it were against the earth. (Van der Laan 1983, 5)

This means that natural space is fundamentally vertical-oriented along the axis earth/below-air/above. Natural space is the primary phenomenal world we confront with our sensory apparatus – i.e. our *passive body* – yet there is something in us which prevents we inhabit this vertical order as such. First, it is an *unlimited* space which extends towards all directions, and in which limits to perception arise only as 'folds' which grow organically from the surface of the earth – woods, hills, mountains, and so on (Van der Laan 1983, 6). Second, it is a *homogeneous* space which extends continuously along the mass of the earth, without any breaks, only folds and cuts in its own surface. We cannot live solely on natural space because our 'great manifestation of life lies just in our ability to stand upright and move, and in so doing to counteract the downward movement caused by gravity (Van der Laan 1983, 21). Van der Laan also emphasises what he calls our *experience-space* – i.e. the *space-image* we construct in our mind and according to our own bodily structure (Van der Laan 1983, 5). In contrast to natural space, the space we construct from our experience is *body-centred, limited, and heterogeneous*; and for this reason it is 'necessarily in conflict with the space of nature', affirms Van der Laan (1983, 5). Following this idea from Kant, the Chilean architect and theorist Juan Borchers asserts (Fig. 2):

In nature things extend continuously in all directions. They can have all possible measures (...) The human mind has to make a distribution of them all and group them into a few simple and meaningful directions, directly related to the subjective constitution of the human body: height, width, length. These same, grouped in opposing pairs and separated by a cut: right and left, back and forth, up and down.

These sensations do not exist in the outside world from which the stimuli that affect our sense organs come from, but in our subjective structure that we transfer to the outside world. (Borchers 1975, 28)

Because *experience-space* – or subject-space if you prefer – is body-centred, it is essentially *horizontal*, which means, as Van der Laan notices, that potentially contradicts the gravity-based vertical axis of natural space. Humans are also the only evolved bipeds, and in virtue of this upright position they cannot live simply *upon* or *against* the earth. However, this mismatch between man and nature is not as self-evident as it may appear. Man is also part of nature, which means nature has created a species which is, by *nature*, in contradiction with the world – with nature itself. Van der Laan is plainly aware of this problem: nature has produced such a species because it lacks something, it is incomplete. What does it mean when we say that 'we are in nature, we form part of it like everything

This text box is where the unabridged thesis included the following third party copyrighted material:

The Natural World. Borchers, Juan. 1975. *Meta-Arquitectura*, 20-21. Santiago: Mathesis.

Fig.1. The natural world and its forms

This text box is where the unabridged thesis included the following third party copyrighted material:

The Coordinate System of Man. Uexküll, Jakob von. 1957. "A Stroll Through the Worlds of Animals and Men: A Picture Book of Invisible Worlds." In *Instinctive Behaviour: The Development of a Modern Concept*, edited by Claire H. Schiller, 15. New York: International Universities Press.

Fig.2. The coordinate system of man

else, and yet we are also outside of it'? (De la Cruz 2000, 87). If *external* nature is incomplete, so it is *internal* nature, 'nature is also what man lacks' (Lefebvre 2011, 138). It is the force of abstraction what allows humans to detach themselves from nature by changing its form but, does not abstraction come from nature in the first place? If this holds true, the argument according to which human abstraction (consciousness) is based ultimately in its material, phenomenological experience of the world, must be deepened.

The *natural order* is the concept which allows us to grasp the contradiction between external and internal nature. I have said that nature has an order, which manifest itself in the unlimited, homogeneous, and vertical orientation of its space. It also manifests itself in all its organic creations, which grow by intussusception³ – i.e. from within themselves (Fig. 1). Yet, this order remains somehow in human-made objects, how is this possible? According to Marx, there always exists an inevitably organic relation between man and nature, without which human life would not be possible:

Nature is man's *inorganic body* – nature, that is, insofar as it is not itself human body. Man *lives* on nature – means that nature is his *body*, with which he must remain in continuous interchange if he is not to die. That man's physical and spiritual life is linked to nature means simply that nature is linked to itself, for man is a part of nature. (Marx 1959, 31)

From this, an initial conclusion can be drawn: if the natural order, with its laws and dispositions, is the law of nature, then it is part of human nature as well. Man's immediate biological and physiological needs – e.g. eating, shelter, sleeping, sex, and so on – do not necessarily require previous elaboration of abstraction *tout court*. Thus, for satisfying these primordial natural needs, man has to work as nature itself would – he has, like other species, hunt or gather its food, find or construct its shelter, and the like. But this does not only apply to 'primordial needs'. What does it mean when we say that something is or develops in a *natural* way? Here a distinction should be drawn between *nature* and *the natural*. The latter means something which develops *spontaneously*, without the intervention of rational and systematised thought, according to natural laws – i.e. vital and organic laws. The distinction between man and nature gets even blurrier when the development of human history in relation to nature is taken into account. Marx suggests that nature in-itself is an illusion created by bourgeois thought to make us believe that there is a clear-cut distinction between man and nature.⁴ As Schmidt suggests, 'nature is for Marx a moment of human praxis and at the same time the totality of what exists' (Schmidt 1977, 23). For Marx then, the phenomenal world is both natural and social:

The sensible world is certainly not for Marx 'a thing immediately given since eternity, always identical to itself, but rather the product of industry and the condition of society', but this world socially mediated is yet at the same time natural and historically precedes the whole of human society. (Schmidt 1977, 29)

Marx goes even further as to claim that 'the nature which develops in human history – the genesis of human society – is man's real nature; hence nature as it develops through industry, even though in an estranged form, is true anthropological nature' (Marx 1959,

47). Here, he asserts that the only nature accessible to human beings is the nature transformed by their activity. Man must labour, because it is *in* his nature, it is what makes him human, and simultaneously, what makes him to struggle against nature. In man, nature struggles against itself.

The Active Body

A further clarification of the concept of the *passive body* and its conflicting yet dependant relation to the natural order is needed to understand the relevance for architecture of what Lefebvre deemed as the *active body* (Lefebvre 1991, 405). What is implied in this dual structure of the human body is a theory of its 'metabolic' interaction with the environment. According to Lefebvre, the human body and living organisms in general can be understood as energy-catcher devices:

(...) the living organism may be defined as an apparatus which, by a variety of means, captures energies active in its vicinity. It absorbs heat, performs respiration, nourishes itself, and so on. It also, as a 'normal' thing, retains and stocks a surplus of available energy over and above what it needs for dealing with immediate demands and attacks. This allows the organism a measure of leeway for taking initiatives (these being neither determined nor arbitrary). (Lefebvre 1991, 176)

The *passive body* corresponds to the functions performed by our sensory apparatus or external senses – e.g. sight, hearing, touch, taste, smell, temperature, kinaesthetic, and so on. Under this modality the body effects minor transmissions of energy with the environment (sensory data). Because the passive functions of the human body are linked directly to external nature, they are responsible for the infinite variety of forms, images, smells, sounds, that give shape to our phenomenal world, or *Umwelt* (surrounding world).⁵ Therefore, if something *natural* remains in the social development of our biological being, it is above all our sensory perception. Without natural laws operating through the passive body, it would be impossible for the empirical world to have a coherent shape for us.

Our *experience-space* is the result of the interaction between the passive body and natural space. The contradiction between these spaces stems out from the conflict between external and internal (human) nature. The first takes the shape of a natural pre-human space which does not fit our natural bodily constitution. As humans, we need *to do* something in order to complete natural space to make it liveable for us. Van der Laan illustrates this with a simple but telling example:

The ground being too hard for our bare feet we make ourselves sandals of softer material than the ground, but tougher than our feet. Were they as hard as the ground or soft as our feet they would give us no advantage, but being just hard enough to stand up and wear and yet just soft enough to be comfortable, they bring about a harmony between our tender feet and the rough ground. (Van der Laan 1983, 1)

This example implies the fact that external nature is 'too rough' for us to live in or to adapt like other creatures, hence it appears as an *incomplete* order – which does not mean inferior. As Heidegger puts it, man is thrown into the world,⁶ but also in an 'incomplete' form, so he has to develop himself and its surroundings in order to survive. The only possible way for man to overcome this mismatch – in which, as it were, man is 'too weak' and nature 'too strong' – is *to act* and directly *modify* nature to make it fit its own needs: 'Against the unity of man to nature it is stated its irreconcilable character, that is, ultimately, the need of labour' (Schmidt 1977, 26).

The *active body* is set in motion by those functions that involve massive energy transmission between our body and its surrounding space. These correspond to our sense of direction (space), location (place), and moment (time), provided by our vestibular and locomotor systems, among others (Uexküll n. d., 30). The *movement* of the human body is what makes possible the potential overcome of the contradiction between natural space and experience-space. Nonetheless, it is not any movement or any kind of activity, there is one *primordial* activity without which any other would be impossible to sustain: *human labour*. Why? Because it is only by changing the *form* of nature that man is able to survive *within* nature. He has no choice but to use his natural bodily forces to 'set aside' a portion of the earth and shape it to fit his needs. For Marx, labour is not only a requirement for survival, but a 'nature-imposed' necessity:

The labour-process (...) is human action with a view to the production of use-values, appropriation of natural substances to human requirements; it is the necessary condition for effecting exchange of matter between man and Nature; it is the everlasting nature-imposed condition of human existence, and therefore is independent of every social phase of that existence, or rather, is common to every such phase. (Marx 2011, 50, 205)

This activity has, therefore, a universal character. But before I turn into the social aspect of the labour process, let us examine the biological and physiological implications of it in more detail. Both Marx and Lefebvre saw human labour primarily as a general physiological action and not as a definite type of activity. For Lefebvre the active body implies the work done by limbs, muscles, and the like, in order to move and perform any activity. In turn, Marx suggested that 'however varied the useful kinds of labour, or productive activities, may be, it is a physiological fact, that they are functions of the human organism (...) essentially the expenditure of human brain, nerves, muscles, &c' (Marx 2011, 82). Thus, this general understanding of human labour approaches to the definition of (mechanical) *work* in physics – energy required by a force to displace an object. There is much discussion as to the nominal difference between *labour* and *work* as, for example, in Arendt's critique of Marx (Arendt 1998, 79-167). Yet, I'm concerned here with human activity in its most concrete and general fashion, as the human body in motion through space with the aim to modify it.

What is external nature for the active body? If man cannot avoid modifying nature, then the latter has a *use value* for him. Man opposes the forces of his body to that of nature by way of physical work, an expenditure of energy that extracts the materials provided by it. Both

Marx and Van der Laan coincide in the fact that there seems to be a necessary conflict (and unity) between man and nature – arising from the fact that he must withdraw a space from nature and make it work for his own purposes – but also in their focus on human movement and activity as the real source of all human creations. In this everlasting activity, nature acts as the *subject of labour*, while the body acts as the primary *instrument of labour*.⁷

The soil (...) in the virgin state in which it supplies man with necessities or the means of subsistence ready to hand, exists independently of him, and is the universal subject of human labour. All those things which labour merely separates from immediate connexion with their environment, are subjects of labour spontaneously provided by Nature. (Marx 2011, 198-99)

Apart from food and others, the earth's surface itself provides materials which can be assembled to form barriers and limits that did not exist before. In order to do this, man needs to employ his bodily forces in a certain manner consistent both with the laws of those materials (of nature) and the laws of his own purposes (mental laws). This is what Marx had in mind when he talked about an interchange of matter (*stoffwechsel* or metabolism) between man and nature. What is the relation between labour and the body's movement? Consider first the different roles of arms and legs:

The body composed of trunk and limbs, and crowned by the head with its sense organs. In movement the trunk acts as the static and the limbs as the dynamic component; the arms and legs move relative to the trunk which stays still.

In contrast to four footed animals, which use their fore-legs and hind-legs in a fairly similar way, man uses his arms and legs quite differently: with the first he works, with the second he walks (...) Work movements go completely against the downward tendency caused by weight, whereas walking is a coordination of the downward movement due to gravity and the free, upward movement of life. (Van der Laan 1983, 21)

Furthermore, for Van der Laan, the relation between limbs and trunk mimics that between the whole body and its immediate environment, as he sees a *static-dynamic* dialectic at work in human activity. The upright body, and his semi-detachment from the ground via its movement, allows it 'to extricate itself from the stability of the environment thanks to that very stability. We need the stability of the trunk to move the limbs; we need the stability of our surroundings to move our body from place to place' (Van der Laan 1983, 21). The physiological constitution of the body also demands certain type of actions to be coordinated in order to achieve the transformation of the materials provided by nature. Lefebvre locates these on the different bodily gestures we perform according to distinct activities, such as work: 'The space of work is thus the result, in the first place, of the (repetitive) gestures and (serial) actions of productive labour (...)' (Lefebvre 1991, 191). In order to give form to the materials of nature, man has to dominate a technique of work. For this, he also is able, unlike other species, to divide the work process into stages: *conception* and *execution* – i.e. the ability to plan *process* and *product* in advance to its actual material realisation.

The Housing-Labour Process

I have reached the point where it becomes almost impossible to keep going without discussing the only product of labour in which man can live in: the house. As the first architectonic construction, I'm concerned not with the concrete house, but rather with what Van der Laan designates as the general *housing process*. (Van der Laan 1983, 2). Continuing his example of the sandal, he addresses this process as arising from the initial contradiction between man and nature:

Just as the material and form of the sandal are so chosen as to be in harmony with both rough ground and tender feet, the artificially separated space must also be created in accordance with the demands of the natural environment and of our own constitution.

For the foot the surface of the sandal represents a little piece of soft ground, whereas the underside acts as a toughened foot in relation to the ground. In the same way the inside of the house is for man a piece of habitable environment, while on the outside, where it confronts nature, it stands for a fortified human existence (...) With the house it is a matter not just of the contact between our feet and the ground, but of the meeting of our whole being with the total natural environment (Van der Laan 1983, 1-2)

The *housing process* comprehends the necessary course of action for man to complete natural space by means of labour, and so be able to inhabit his own separated human space. This process is composed by four terms: *nature* at one extreme, the *material* extracted and the *house* built at the middle, and *man* at the other extreme. Van der Laan distinguishes three phases or functions by which these four terms are linked: 1) the extraction and *preparation of the materials* provided by nature; 2) the assembling of these through an adequate *building technique*; 3) the *dwelling* of the finished house (Van der Laan 1983) For Van der Laan this regulation of the 'metabolism' between of man and nature is what allows an understanding of the human activity of *building* as something that can bring about a potential harmony between them, as he sees architecture as the complement of both nature and man.

The role of the active body in this process is first and foremost to oppose his force to that of nature, as he has to use his arms, hands, and special instruments to remove from the earth the materials necessary for building. Hence, the contradiction between man and nature is played out even at the most concrete level of material labour. Marx notices this in his conceptualisation of the *labour process*:

Labour is, in the first place, a process in which both man and Nature participate, and in which man of his own accord starts, regulates, and controls the material re-actions between himself and Nature. He opposes himself to Nature as one of her own forces, setting in motion arms and legs, head and hands, the natural forces of his body, in order to appropriate Nature's productions in a form adapted to his own wants. By thus acting on the external world and changing it, he at the same time changes his own nature. (Marx 2011, 197-98)

The dialectical interdependence of this process is clear: by transforming nature, man transforms his own nature; by building his own house, he builds himself. Notice how both Marx and Van der Laan, talk about *process* rather than *things*: Marx centres on the *labour process* – instead of product – as the primary human activity that assures survival, and Van der Laan talks about the *housing process* – instead of house – to refer to building as the primary activity which allows man to survive in nature. Therefore, there must be something *within* this material process which is crucial for understanding the nature of all architectonic constructions. This understanding points towards the importance of human motion in the production of space, and hence, of architecture. Following this path, the obvious fact that architecture emerged out of the necessity of shelter must be left behind. Only after doing this, a deeper understanding of the emergence of architecture as an extension of our own bodily structure and movement can be reached. In this, Van der Laan is critical of the attempts to justify architecture on functional requirements, material suitability, or construction methods. He sees these as necessary but ultimately contingent and specific requirements, which do not reach ‘the first fundamentals of the house form’ (Van der Laan 1983, 4). It is clear that if architecture is narrowly explained in terms of ‘shelter’ we don’t get too far in gaining insight on why man builds, and why he builds in a determinate way and not another. Consequently, for Van der Laan the contradiction between natural and experience space is what gives rise to architecture as a primordial fact:

Architecture is born of this original discrepancy between the two spaces – the horizontally oriented space of our experience and the vertically oriented space of nature; it begins when we add vertical walls to the horizontal surface of the earth. (Van der Laan 1983, 5)

In order to change nature into useful form, man has to link two components: *matter* and *labour* (Marx 2011, 50). Matter as such has no definite form; it is formless, because it is a universal abstraction.⁸ Whereas existing and concrete natural matter has no true form for human beings, because it is only a variation on the earth’s surface. For form to exist materials have to be assembled in a definite way. Van der Laan identifies three primary *architectonic datums*: *the pier*, *the wall*, and *the architectonic space* (Van der Laan 1983, 9-10). The first comes about when we realize that a block of stone extracted from the earth is not enough to build a separated space. We must pile several blocks in such a way as to reduce its upper surface in relation to its height, thus forming an upright bar-form or ‘bar-shaped pier’. But this *pier* is still not enough though, hence ‘in order to subdivide space into two parts the bar-form must be broadened into a slab’ (Van der Laan 1983, 9). This upright slab constitutes *the wall*, which yet cannot create by itself a limited separate space, for it only can bisect natural space into two major spaces, ‘but to cut off a piece of space from the major space a second wall is needed that relates to the first in such a way that a new space is generated between the two’ (Van der Laan 1983, 10), *architectonic space*.

2 The Artificial Order

Things and Objects

I have asserted that there is no clear-cut distinction between man and nature, and yet there is no harmonious unity either, for what always remains is an inherent contradiction derived from their structural discordance, which is only partially overcome through labour and its products. This contradiction is dialectical, not logical, which means that nature and man are two complementing opposites in an everlasting reciprocal and material exchange. If there were no opposition, there would be no need for man to labour in a particular way in order to survive.

Nature creates, while man produces. The product of our labour is not the outcome of a natural process, it is not done by instinct, and it produces artefacts: it is *artificial*. However, and if I stick to my initial conclusion about man and nature, the natural-artificial distinction is far from being self-evident.¹ Take the difference between nature and *the natural* for instance – the former being the total environment (biosphere) and the latter a feature of things and processes created by nature (including human beings). It could be argued that the split between external and internal nature gets reproduced within the concept of *the natural*. This would mean that some of the features of natural processes would somehow be present in human-made artefacts – a kind of *internalisation* of the natural. This distinction requires going beyond the mere appearance of things and address the internal *order* which structures them. The *natural order* would be that which is based on *natural laws*.² This means that human-made artefacts which are based on the laws of nature, such as airplanes, locomotives, bridges, and engineering works in general, belong to the natural order, even though they are obviously artificial – in the sense of man-made (Borchers 1968, 33). They would not be possible without the abstraction of natural laws in the physical laws of science. An airplane would be unthinkable without the principles of aerodynamics, in turn developed by studying the flight behaviour of birds, fluid mechanics, and so on. This means that all natural things are the *de facto* expression of the natural order, but not all artificial things belong to the *artificial order*. What is this order? What are its properties? Van der Laan understands it in fundamental discordance with the natural order, starting from the first architectonic construction:

The house will not have, therefore, a form determined by nature, as in the case of a bird's nest. Wherever intelligence intervenes as a principle of form, it appears the break with the homogeneous world of natural forms (...) these new forms maybe the subject of a new order, an artificial order, which has its place in nature. (Van der Laan 1960, 5-6)

How can these two orders be effectively distinguished? Human intelligence seems to be one of the key elements. But what about airplanes or locomotives, are they not the product of the human intellect? To find a way out of this impasse a crucial distinction derived from the dual constitution of the human body must be developed: the difference between *thing* and *object*. I will first draw on the specific definitions given by Borchers and Uexküll, for then contrast them with some insights by Heidegger.

For Borchers, a *thing* is the sensory data we perceive using our external senses – the passive functions of the body, such as our sight, touch, smell, and the like. The passive body captures the various stimuli arising from the thing; the appropriate organ transforms the corresponding stimulus into a nervous excitation that goes into the brain which transforms it into a *sensation*. Take a jug for example, as a thing is for us something hard, brown, of a certain size, weight, smell, temperature, and so on. The passive body, constituted by our external organs, unifies all the separate sensations emitted by the brain into a unitary and coherent form which we then transfer out to our surrounding world, filling it with things of all sizes, colours, and shapes, and creating a *perception* out of them.

In the previous chapter I stated that there is an immanent relationship between our sensory apparatus and nature. Now I can explain the implications of this assertion. The given definition of *thing* implies something which is already there, outside of us, and that we ‘internalise’ through our senses to form a unitary perception of the world. However, the *sensations* that we perceive from things are not out there – properties of the thing itself – but rather created in our brain in a process which always starts from the thing, passes through the body-brain, and finishes again in the thing. Uexküll called this process *sensory circle* (Uexküll n. d., 29). This means that sensations, say like hearing sounds, do not exist in the world independent from us, but only the air vibration as a stimulus to our ear: the circle closes when we transfer the sound sensation back to thing and make it appear as if it comes from it and not ourselves. When the circle closes we are no longer able to ‘distinguish between something initial and something final anymore, or otherwise, between an organism and an exterior world’ (Borchers 1968, 144). Therefore, the distinction between *external* and *phenomenal* world is decisive and mirrors that between external and internal nature: the first is independent from our perception; the second comes about only when the circles of perception are completed. Our *phenomenal world*, *self-world*, or *Umwelt* comes from our own constitution as subjects and organisms, from our *experience-space* as its encounters with the *external world*.

Something entirely different – although closely connected – happens when we *react* towards the external world. This happens when the result of a stimulus goes beyond a mere sensation or perception, when our body reacts to certain stimuli coming from the thing and performs an action. If ‘our sense organs serve our perceptions’, then ‘our motor organs our actions’, affirms Uexküll (1957, 6). Our *Umwelt* splits in two parts: a *perceptual world* of sensations, which comprises all things perceived; and an *effector world* of actions,

which comprises *objects* produced and used by man. For Uexküll (1957, 6), our essential biological activity consists in *perceiving* and *acting*.

I call briefly “objects” to all things which executes actions appropriate to the service of man (...) an object is thus a thing signalled by its ability for execution (...) The distinction between thing and object is not familiar to the naive observer. He considers all things as objects, because he only contemplates them in their relations with men. (Uexküll n. d., 63-64)

A tree can serve to give us shade but it is not an object, since it does not correspond to the structure of our actions which we carry in our memory (Uexküll n. d., 64). On the contrary, if we pick and fill a jug with wine, and then we pour the wine into a glass, then the jug turns from a *thing* into an *object* of use, it articulates with our actions. Now it is clear that thing and object designate one and the same body in space, and that a jug as *thing* can be something relative as *object* if, for instance, we use it as a vase. Heidegger used this example in his seminal 1950 essay *The Thing*, in which he wonders about the essence of a thing, and why we have lost access to it in the modern world. However, for him a thing is what is essential to an object, whereas the latter is only the external appearance or ideal representation of the thing (Heidegger 1971, 164-65). Heidegger claims that what makes the jug a thing, is it being a vessel, and what makes it a vessel, is the property of being a holding void, he argues that ‘the jug is not a vessel because it was made; rather, the jug had to be made because it is this holding vessel’ (Heidegger 1971, 166). According to the previous definition given by Uexküll and Borchers, for Heidegger the thing *is* the object, namely, things which ‘effect our purposes’ (Uexküll 1957, 6). Yet, objects are not simply useful things, but rather pre-existing *schemes of action* contained in our memory and the thing: objects are not actually material and visible. The *object* in a jug – or a bottle for that matter – is always the same, no matter the particular material in which it was made, nor its various shapes or designs: the *object* consist in the action of holding (taking and keeping) and then pouring out, as Heidegger rightly asserts. This sequence of actions can be performed in different ways, but the coordinated rules remain the same, thus an object is not even merely a series of actions, but rather the invariable scheme or set of rules which structures them. If we don’t know previously these rules for using the jug, this will remain only a thing sending various stimuli which our external organs will capture and turn into a perception, but it will not send any stimulus to our internal (effector) organs, and consequently, our body will not react with a corresponding unitary action.

Things carry an external and independent existence from man; accordingly we perceive them with our sensory organs, forming a unique human perception of them. Whereas *objects* are dependant and internal to our organic constitution, hence we only grasp them with our internal organs – including memory – and then we react performing a unitary bodily action on the thing. *Things* belong to the *natural order* when they don’t resonate with our willed actions; while *objects* pertain to the *artificial order*, not only because they are man-made but, more importantly, given they emanate from mental laws which effect our intentions and purposes towards the outside world, changing it continuously.

Use, Exchange, and Value

The *artificial order* is produced in thought; its laws fundamentally contradict the laws of nature rather than mimic or make abstraction of them. The jug is a product of human labour, the reshaping of earth materials by the human hand. But as Heidegger asserts, the jug had to be realised because it existed previously in the human mind, not as the image of a specific jug design, but more fundamentally as the *purpose* of fulfilling a need: that of holding and pouring liquids. The coming into being of the jug depends on human action performed on nature, but this is not what makes it artificial. The jug is an *artificial object* since 1) it had to be previously conceived with a clear intention; 2) it had to be designed or constructed according to geometrical laws which do not exist in nature; and 3) once completed it had to be ‘activated’ by the human body, and thus ripped off from the realm of passive *things*, and turned into an active *object*.

It was this realm of objects at the service of man that Marx looked at in his enquiry on the nature of commodities. For him, commodities are first of all useful things that could be analysed either from its qualitative or quantitative aspects (Marx 2011, 42). The former refers to its utility or suitability to human needs, the latter to the quantity of it that can be traded for another thing. Yet, objects are not really material things, but a *performance plan* deposited into the thing by our will: *a result of our previous actions that serves our subsequent actions*. In a first instance, Marx related this immaterial dimension of the object to the fleeting nature of use, stating that a useful thing ‘is an assemblage of many properties, and may therefore be of use in various ways’ (Marx 2011, 42). Nonetheless, he also understood the dependency of the object on the actual concrete thing:

The utility of a thing makes it a use-value. But this utility is not a thing of air. Being limited by the physical properties of the commodity, it has no existence apart from that commodity (...) Use-values become a reality only by use or consumption: they also constitute the substance of all wealth, whatever may be the social form of that wealth. (Marx 2011, 42-43)

The concept of *use-value* comes close to that of the *object*. Its concreteness is defined in terms of its actual performance, its activation by the human body – when this is not the case, it returns to its state of natural thing, of passive perception. An *object* is at the same time *abstract* (the product of mental laws and purposes), and *concrete* (the product of material labour and performance). However, it is from the point of view of *quantity* that a commodity comes into being as such. We can trade a certain quantity of a given commodity for a certain quantity of another – for instance, we could trade two jugs for one book. But what enables this equivalence? How can we establish the right proportion at which each commodity is exchanged? Marx affirms that

Exchange-value, at first sight, presents itself as a quantitative relation, as the proportion in which values in use of one sort are exchanged for those of another sort, a relation constantly changing with time and place. Hence exchange-value appears to be something accidental and purely relative, and consequently an intrinsic value, i.e., an exchange-value that is

inseparably connected with, inherent in commodities, seems a contradiction in terms. (Marx 2011, 43)

Unlike exchange, the realm of use-values is completely heterogeneous: they are as diverse as human needs. This poses a problem, for if we want to barter a use-value for another, we have to equate two entirely different uses – say holding liquids (jug), and reading (book). Can we actually say that a book is worth two jugs since it is more ‘valuable’ in use? No, we cannot equate two different values in use because the utility of a thing – its ability to satisfy our needs – rests on a subjective-qualitative realm. Marx pointed out that we fall in a similar delusion when we try to explain exchange-value solely on its quantitative determinants – the fact that two jugs equal one book – since these 2:1 ratio is just the expression of something internal to all commodities: ‘first: the valid exchange-values of a given commodity express something equal; secondly, exchange-value, generally, is only the mode of expression, the phenomenal form, of something contained in it’ (Marx 2011, 43). This mysterious element cannot be some material property of commodities either.

This common "something" cannot be either a geometrical, a chemical, or any other natural property of commodities. Such properties claim our attention only in so far as they affect the utility of those commodities (...) If then we leave out of consideration the use-value of commodities, they have only one common property left, that of being products of labour. (Marx 2011, 44)

In the previous chapter I followed Marx in that human labour is an ever-lasting necessity in which we engage in a continuous metabolic relation with nature. As a result, it is also the means by which things turn into objects of use. And lastly, labour is also the common substratum that allows commodities to be compared with one another. If each commodity requires a definite kind of labour to be produced, how to measure this diversity? That was for Marx the first problem after he identified labour as the *substance* of the value of commodities. However, this new concept of (intrinsic) *value* as something embodied in commodities and yet different from their use and exchange values, must be clarified. The first thing to bear in mind is that *value* comes into being *only* as commodities are exchanged for one another. Taken in isolation, a commodity has value (in use) only for the person who produced it, thus no social validity. Furthermore, commodities cannot be compared by their uses, since they differ *qualitatively*. On the contrary, ‘as exchange-values they are merely different quantities, and consequently do not contain an atom of use-value’ (Marx 2011, 44). More importantly, the different kinds of labour required for producing qualitatively different commodities, have no relevance in exchange either. What remains then is human labour as a general activity, since what happens in exchange is that

Along with the useful qualities of the products themselves, we put out of sight both the useful character of the various kinds of labour embodied in them, and the concrete forms of that labour; there is nothing left but what is common to them all; all are reduced to one and the same sort of labour, human labour in the abstract. (Marx 2011, 45)

The concept of *abstract human labour* is crucial to understand Marx's concept of value. The *value* of a commodity corresponds to the quantity of labour required for its production. Following Ricardo, Marx sets up the *labour-time* (hours, days, weeks, etc.) spent in the production of a commodity as the determinant of its value, but there is a central distinction that soon drove him away from this explanation. For if I decide to take a long time making a commodity, that doesn't mean my commodity has more value: labour-time has to be viewed against the background of social relations and within society as a whole (Harvey 2010, 18, 20). And if *abstract labour* refers to the expenditure of human labour-power *in general* – stripped from any concrete distinction – then, says Marx, there must be a social average of labour-power, of the ability to do useful work under a certain amount of time, conditions, and intensity. So far as human labour 'requires for producing a commodity, no more time than is needed on an average, no more than is socially necessary' (Marx 2011, 46), then the value of commodities will remain constant. Therefore, *socially necessary labour-time* is the time 'required to produce an article under the normal conditions of production, and with the average degree of skill and intensity prevalent at the time' (Marx 2011, 46). This socially determined average time for the production of a commodity is what fixes its *social value*. A building takes for society, on an average, a long time and effort to produce, whereas a bed takes considerably less: the difference in their values is socially grounded. We are able to know these values only when we compare and trade commodities in the market, and not by themselves. Thus, we are able to determine how many jugs equal a book, how many books equal a bed, or how many beds equal a building.

There are also a number of similarities between Marx's concept of *value* and that of the *object*. For example, both refer to something which is only accessible through some form of mediating action: I perceive the object of a chair only when I sit in it (whether actually or potentially), I know the value of a chair only when I exchange it for some other object. However, the critical connection lies in their internal relation to human labour which I will examine in the next section.

The Architectural Object

Before moving on to the relation between *object* and *value*, I need to utterly clarify the concept of *object*, and this means to draw attention to its difference with *use*. I have shown that many objects can exist within one and the same thing, so we can use a chair as bedside table or a bedroom as office, without any change in the material properties of the thing. But is this not a simple change in its use? So far, I have not drawn any explicit distinction between *object* and *use*, but merely pointed out their similarities.

Although Heidegger defined things and objects in the exact inverse sense than Uexküll and Borchers did, it will be useful to examine some of his early insights. For him, objects designate the way in which western metaphysics detached the abstract and ideal realm of

pure forms from the mundane realm of concrete things, putting the latter as a mere imperfect reproduction of the former (Sharr 2007, 29). Following a phenomenological approach, Heidegger saw things as belonging to the world of everyday uses and experiences, but the distinction, within this realm, between the active and passive properties of things was not clarified. He addressed this issue back in 1927 with the concepts of *present-at-hand* and *ready-to-hand*.

No matter how sharply we just *look* at the 'outward appearance' of Things in whatever form this takes, we cannot discover anything ready-to-hand. If we look at Things just 'theoretically', we can get along without understanding readiness-to-hand. But when we deal with them by using them and manipulating them, this activity is not a blind one; it has its own kind of sight, by which our manipulation is guided and from which it acquires its specific Thingly character. (Heidegger 2001, 98)

A thing is *present-at-hand* when it is being perceived by the passive and detached attitude of the theorist or philosopher – merely contemplated and looked at as a material fact, at best as the 'crystallisation' of the pure idea. On the contrary, a thing is *ready-to-hand* when we actually engage with it and directly use it without 'thinking'. From this it can be presumed that Heidegger was concerned with counteracting the primacy of the ideal and visible *object* (present-at-hand) over the *thing* (ready-to-hand) – accessible phenomenologically through daily use. Therefore, Heidegger's distinction roughly matches the earlier understanding of *thing* and *object*. Heidegger's *thing* is pretty much the *object*, while his *object* is not quite the *thing*. I will stick to the previous definition to avoid misunderstandings while maintaining Heidegger's critique of an abstract-idealist approach.

If the *object* exists both as a mental scheme of action, and as a concrete phenomenal and useful thing, this leaves its status in a confused state, is it a purely abstract matter or a practical one? How can it be both at once? A bicycle is both an immaterial mental scheme which bears the rules for riding it and a concrete artefact made according to those rules. When we *use* something, we never do it in the same exact way; we cannot replicate the exact same movements and positions, why? Because *use* consists merely in the concrete actions required to consume something. These actions are performed according to *rules of movement* stored in our memory but they are not those rules, they are just their concrete and contingent manifestation. Neither are these rules purely ideal forms, but they are grounded in our bodily experiences. Yet, *objects* do have certain fixity derived from the body's performance and capacities, but they are neither immutable nor transcendental. Therefore, the reality of objects is *substantial* or *formal* rather than contingent. Borchers argued that this property made objects the real substance of architecture:

A drop of water has the shape of a sphere; a knife of steel has an elongated shape and an edge: knife and drop are bodies, but water and steel are the substance of drop and knife. Objects form the substance of architecture (...) a table can be of wood, marble or other material; the material there does not constitute the object, it is as it were the incidental, neither this or that form: the object is the permanent, the enduring with independence of its configuration, which is changeable and shifting. (Borchers 1968, 31)

Instead of an architecture merely grounded on its sensory appearance as *thing*, Borchers sought one based on what ultimately remains of it after all the rest has disappeared or changed: *architectural objects*. Similarly, for Marx *values* form the substance of commodities. Through time, they can change their use and exchange ratios, but what remains is their value – though in any absolute fashion.

Until now, it may seem that *objects* form part of an obscure and purely abstract realm, or else a subjective definition that has little empirical validity. Yet, Uexküll based his analyses on scientific experiments, and defined objects as a biological fact without which we would not be able to give shape and movement to the world around us (Uexküll 1957, 14, 16, 30, 37, 43). If human use is what turns things into objects, then it is this activity what allows to overcome the initial contradiction between them, which is one of the forms the contradiction between the natural and the artificial takes. On the other hand, if objects are *substantial*, they form the underlying structure of both *things* and *uses*, which are always contingent and subject to specific conditions. As thing, a jug can be made of many different materials and it can have countless and diverse designs, this will depend on its time, location, and productive conditions. Also it can be used in many different ways as long as its material properties allow it. But it cannot change its size up to a certain point; it cannot change its basic constituents, such as being a vessel (holding). These properties do not need to have a definite shape, but simply be able to be handled by the human hand in a suitable way. Yet, these formal qualities are just one side of the object – which might be called its ‘figure’ (or spatial skeleton) (Uexküll n. d., 55) – the other consisting in *order sensations*, such as our sense of *location*, *direction*, and *moment*, which are internal to our body and completely non-spatial. I shall review them in more detail in the next chapter. Suffice for now will be to signal their relation to our ‘bodily memory’: ‘Our memory – which we constantly use to recognize objects – usually does not consist in images that we compare with objects to see if they match them (...) The object remains in our memory not as a complete image, but as a series of directive signs which like a melody, dwell in us’ (Uexküll n. d., 55-56).

Returning to the concept of *value*, one thing to bear in mind is that for Marx the fully developed value-form is specific to the emergence of capitalism. But how can this be? Do not all human creations have value for them as long as they meet their needs? Marx’s specific definition of value must not be confused with other meanings regarding ethics, culture, or even economics itself – i.e. subjective value theory.³ Marx’s *value* has an entirely different meaning that should be clarified to avoid misinterpretation. For him, the value of commodities is not a matter of subjective judgment, needs, consumer preference, ethical principles, or any other kind of appreciation. On the contrary, the development of *values* signals the advent of a particular mode of production, one in which we don’t produce for our own human needs, but for exchanging our products through the market: ‘to become a commodity a product must be transferred to another, whom it will serve as a use-value, by means of an exchange’ (Marx 1859, 29). Values arise when we compare the amount of average and socially necessary labour-time that went into the production of

each commodity, and this can only be made through exchange. Consider how Marx reflects on value as what remains in commodities after they are abstracted from their qualitative and concrete aspects:

(...) it consists of the same unsubstantial reality [phantom-like objectivity]⁴ in each [commodity], a mere congelation of homogeneous human labour, of labour-power expended without regard to the mode of its expenditure. All that these things now tell us is, that human labour-power has been expended in their production, that human labour is embodied in them. When looked at as crystals of this social substance, common to them all, they are – Values. (Marx 2011, 45)

The threefold structure of the commodity-form is thus revealed: it has at once a use-value, an exchange-value, and a value. Likewise, an architectonic construction can be understood as a purely sensory *thing*, as something that is *used*, and finally as an *object* or ordering scheme. The only term that properly matches with the structure of the commodity is *use*. For *things* are neither abstract nor quantitative, but rather phenomenal and qualitative. And *objects* are not specific to capitalism, but inherent in our organism.

We cannot see or sensually perceive the object in a hammer, it is immaterial and non-spatial: it arises only when our internal senses react to the stimuli coming from it, and consequently our body use/consume it in one way or another – e.g. hammering, pulling out nails. Both Marx and Heidegger theorised about one particular kind of use: *productive consumption*. Heidegger argued that all things ‘ready-to-hand’ are essentially *equipment* which we use ‘in order to’ make or aiding to make other things in a continuous process.

(...) the work to be produced is not merely usable for something. The production itself is a using of something for something. In the work there is also a reference or assignment to ‘materials’: the work is dependent on leather, thread, needles, and the like. Leather, moreover is produced from hides. These are taken from animals, which someone else has raised. (Heidegger 2001, 99-100)

Similarly, Marx points towards this double character of the products of labour, as they are not only results but also conditions for further production.

Though a use-value, in the form of a product, issues from the labour-process, yet other use-values, products of previous labour, enter into it as means of production. The same-use-value is both the product of a previous process, and a means of production in a later process. Products are therefore not only results, but also essential conditions of labour (...) labour consumes products in order to create products, or in other words, consumes one set of products by turning them into means of production for another set. (Marx 2011, 201, 204)

In general, objects form part of a ceaseless process of creation of use-values out of other preceding use-values – including nature. All human activities form part of this process whether directly or indirectly. In this, objects coordinate and discipline human actions according to rules of movement which are both biologically and socially grounded – to the extent that both become indistinguishable from each other. Thus, objects are immaterial

because they form the *substratum* of a permanent social practice: labour. And in particular, objects are also essential for the production of values under capitalism. If, as I stated earlier, they are '*a performance plan deposited into the thing by our will: a result of our previous actions that serves our subsequent actions*', then the temporal factor is decisive. The degree to which objects structure our actions and movements during labour depends heavily on the key factor which manages and controls the time of production and exchange of commodities: the social average of labour-time. Who determines this average? Who sets what is 'socially necessary'? In short, who or whom determines *values* in a capitalist society? (Harvey 2010, 20) Value dictates not only the pace of production, but also its general organisation – including the movements of workers during production and elsewhere. The rules of movement for using/producing an object get transfigured into a new set of rules which will be embodied in the object produced. The rules for hammering nails into wood planks metamorphose into the rules for sitting on a wooden chair. Therefore, the key element which relates (architectural) objects to values is the time of labour, which broadly speaking, is the time of life itself.

The Architecture of Acts¹ and the Abstraction of Labour

Objects and Labour

The general character of human labour was already introduced in Chapter 1, now its relation to the concept of *object* must be developed more in detail as it has been specifically defined in the previous chapter. However, I will first examine objects from the standpoint of biological processes in both the world of perceptions and the world of actions as defined by Uexküll.

The sensations we perceive from stimuli coming from things existing in the outside world are not really properties of them, hence, sensations belong to the subject and lack spatial extension. This is what Uexküll concludes from his biological understanding of what makes an experience of the world, which is heavily grounded on Kant's conception of the subject-object relationship (Uexküll 1957, 13). For example, says Uexküll, if we hear the sound of a bell far away, this is nothing more than a sequence of processes (Fig. 3): a physical process in which the air waves penetrate our ears, a physiological process in which these are transformed by the eardrum into nervous excitation and transmitted to the brain, and finally a psychic process when the receptor cells project a perceptual cue into the *Umwelt* – in this case a sound sensation – making it appear as a property of the bell itself (1957, 63). As already stated, this process is called *sensory circle* since it describes a path from the external to the internal world of the animal and back to the external, forming the subject's *perceptual world* (*Merkwelt*). Each sensory circle corresponds to one sense organ, but in combination they are responsible for the concrete image of our world. Uexküll brought this study to its limit asking which part of the experience belongs to the subject and which to the object (n. d., 13), concluding that an animal cannot perceive anything outside the reach of its own *Umwelt* – which brings him closer to Kant's notion of the *thing-in-itself* (Uexküll n. d., 70; 1957, 13). Some authors have seen the *Umwelt* concept as hardly distinguishable from solipsism (Weber 2004, 300), whereas others have emphasised the distinction between them, arguing that Uexküll never denies the existence of the external world, but he criticises mechanistic scientific objectivism as having forgot the crucial role the subject plays in any experience of the world (Rüting 2004, 49).

The sensory circle provides the content of our experiences: these are *content sensations* and are distinguished by their quality and intensity (Uexküll n. d., 29-30). This circle, however, only consists in 'half' of the biological process described by Uexküll. For if the result of this is a passive sensory perception – a 'natural' thing – there must be another

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Fig.3. Sensory circle and exteriorisation of the sound sensation

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Impulses Circle. Borchers, Juan. 1968. *Institución Arquitectónica*. Translated by Patricio De Stefani for academic purposes, 106. Santiago: Andrés Bello.

Fig.4. Impulses circle and exteriorisation of actions

process by which the subject engages actively with his world. A simple example would be if we suddenly look directly at the sun or if an object is fast approaching our eyes, in both cases we might blink repeatedly or even cover our eyes with our hand or forearm. This is called a *reflex act*, and the process by which the sense organs relate to the organs of action so as to provoke a bodily response is called *reflex arc* (Uexküll n. d., 12-13). But only a small part of our actions can be considered *involuntary* reflexes, whereas the rest result from more complex processes.

Another circle has to be considered, through which our effector organs (effector cells, muscles, glandules) react to a different kind of stimuli that our brain converts into *impulses*. If the sensory circle allows us to form a *perpetual world* that we furnish with things – along with their qualities and intensities –, the *impulses circle* (Fig. 4) enables us to form an *effector world* (*Wirkwelt*) which we endow with objects representing potential actions. *Merkwelt* and *Wirkwelt* form a closed subject-object unit or, as mentioned earlier, the *Umwelt* (Uexküll n. d., 68).

Now, I have said that objects differ from things in that they elicit our actions. All things can be turned into an object if they articulate with us in such a way that they provoke a *unitary action* from our part – i.e. a regulated action (Uexküll n. d., 64). If things are recognised by the *content sensations* we project onto them, objects are distinguished by *order sensations*. Unlike the former, these are discerned solely by their quality and not by intensity, namely: *location*, *direction*, and *moment* (Uexküll n. d., 30). They ‘serve only for ordering the sensations that arise in experience’ (Uexküll n. d., 30) and never present themselves in isolation but in permanent connection with content sensations which ‘wrap’ them with sensory properties. I also held that the *object* is at once concrete and abstract – i.e. a tangible and useful man-made thing and a mental scheme enacted by internal effector organs. Our *sense of location*, for example, is responsible for giving objects their concrete *figure*. This must not be confused with its sensory appearance as coming from content sensations, but rather it is a spatial structure constituted by a ‘given relationship of places in space’ (Uexküll n. d., 55). On the other hand, our *sense of direction* forms the abstract properties of objects, for every *figure* must be grounded on an elemental *scheme* composed by *direction signs*, such as upward/downward, forward/backward. These elementary directions have no shape and form the basic units with which we configure rules of movement that are kept in our memory, ready for their use. Uexküll is emphatic in stressing the importance of these abstract schemes of movement: ‘Without scheme there is no object, as there is no melody without rhythm’ (n. d., 56).

Time sensations are considerably simpler than the previous ones. Just like space, our *sense of time* provides the ‘stage’ for our experiences, therefore ‘any content sensation, wherever present, is always linked to a moment sensation which indicates the point where it has to be placed in the series of time’ (Uexküll n. d., 31). Following the experiments of Estonian Biologist Karl Ernst von Baer, Uexküll regarded the *moment* as the ‘smallest indivisible time vessel’ (Uexküll 1957, 29) which repeats ceaselessly in the successive chain of time. Von Baer fixed the human moment in about 1/18 of a second, and this

establishes the measure under which we are able to perceive movements and distinguish if something 'was' (before), 'is' (now), or 'will be' (after). Any slower or faster movement will not be perceived as such, for example, when we look at clock hands or at the spokes of a bicycle in motion (Borchers 1975, 212).

As both Uexküll and Van der Laan – and certainly Marx – acknowledged, labour is an activity that arises out of the necessity to 'complete' nature in order to dwell in it (Uexküll n. d., 112; Van der Laan 1983, 1). After immediate needs are satisfied, man goes beyond the production of *means of subsistence* to producing his own *means of production*. Hence, *tools* are the first product of labour which is also used as an instrument for it – a conductor of man's activity (Marx 2011, 199). In the previous chapter I discussed this twofold character of objects: for one part they are the *result* of labour, for another they are *conditions* for it. It is this latter property what demands attention since it has an 'operational' relevance. All objects can be regarded as being *instruments* of some sort, on account of their 'equimentality' (Heidegger 2001, 97). Labour can be understood, then, as an activity whereby (natural) things are transformed into (artificial) objects, and in which these latter, as being also conditions or tools for further labour, embody the 'operations' necessary for their productive use. Understood in this way, objects must pre-exist in our cerebral and bodily memory in order to be properly effected during the labour-process. Yet, this must not be regarded as a concrete image, but as a set of rules or directions, which activate as soon as we 'see' a potential action in things.

The fact that objects cannot be perceived directly through our sensory apparatus led Uexküll to examine by which process our internal organs get stimulated, so he put forward the notion of a threefold human space: *tactile*, *visual*, and *operational*. In tactile space we project *local signs* into the external world, forming a sort of place-mosaic. In visual space, these local signs coincide with the visual elements of the retina, forming a mesh which wraps all things, and on which depends the sharpness and detail of our visual image (Uexküll 1957, 19-20). Accordingly with the peculiar distribution of our tactile organ (skin), when we project sensory units outside, these form an 'extension' which surrounds us entirely, like a soap bubble full of local signs (Uexküll n. d., 43-44). Thus, our internal sense of location gets activated through two external senses, touch and sight, and in that way it is associated with the concrete side of objects – i.e. their 'figure' composed by numerous localities. The links between each local sign on the tactile and visual place-mosaic are made through *operational space*. In it, we perform our daily movements which follow *directional steps* according to the six basic directions mentioned in Chapter 1 (see Fig. 2), and that we can recognise through *propioception* or *kinaesthesia* which acts as *direction signs* (Uexküll 1957, 14). The *sense of direction* organises these into three planes intersected perpendicularly to each other, forming a coordinate system centred in the head (Uexküll 1957, 15). Directional steps are responsible for linking together all local signs in our 'extension' and also for guiding our motions. The stimuli affecting the impulses circle comes not from natural things, but from objects of our own creation which bear the mark of direction signs we imprint onto them. This correlation might lead to understand the architectural work as the result of a large scale and 'motor reaction'.

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Fig. 5. The functional circle as the joining together of sensory and impulses circles

When we receive external stimuli coming from things, we instantly mark them with *receptor cues* (perceptual meaning), closing the sensory circle. Conversely, when we receive internal stimuli coming from our own body – as it relates with sensations from the ‘first circle’ – we mark things with *effector cues* (operational meaning), closing the impulses circle by transforming them into objects. The joining together of the two is called *functional circle* (Uexküll 1957, 9-10; n. d., 68) and describes the actions we perform as consequence of having a perceptual experience of the world. This is the continuous activity of production which humans inevitably have to carry out in order to make a livelihood (Fig. 5).

Human labour can be considered then as a particular form of the functional circle. Marx described it as a ‘metabolic’ relation with nature. What is at stake then, in the functional circle, if not a relation of this kind? Labour takes place primarily within *operational space* as a set of instructions guided by directional steps. Therefore, the twofold nature of the functional circle – its perceptual and motor aspects – must be regarded as the biological basis of all productive activity, and it is in this sense that the production of the architectural work can be understood as a ‘chemical reaction of grandiose proportions’ (Borchers 1975, 10). Looked at from this standpoint, objects will appear not just as the material result of productive activity, but also as a projection of the socially coordinated actions of labour.

Labour and Value

So far, I have considered – from the biological standpoint – the subject-object relationship in great detail. At this point it is necessary to move into the analysis of the social relations implied in it. This will be done to counterbalance the lack of such realm in Uexküll’s evident phenomenological approach. For if some have labelled his subjective turn in biology as largely Neo-Kantian in character, others have noticed the ‘contextual’ influence of his contemporaries Husserl and Frege (Chang 2004, 116, 119).

Regarding objects as concrete embodiments of many useful qualities, they are the product of a seemingly never-ending variety of types of labour. For Marx, use-values must be accordingly, the products of *useful labour* – i.e. of ‘productive activity of a definite kind and exercised with a definite aim’ (Marx 2011, 49). The heterogeneity of concrete and useful labour corresponds to that of objects, so carpentry, tailoring, weaving, building, and so on, produce chairs, coats, linen, buildings: ‘what appears objectively as diversity of the use-values, appears, when looked at dynamically, as diversity of the activities which produce those use-values’ (Marx 1859, 7). But one and the same activity can produce many different kinds of objects. A carpenter can produce chairs, beds, or tables; a builder can build houses, factories, schools, and so forth. This is what Marx refers to as the ‘social division of labour’ as the heterogeneous totality of different forms of useful labour performed separately, and which constitutes the basic condition for commodity production (Marx 2011, 49; Mohun 2001, 153-154). According to Jameson, it is *concrete labour* and its particular branches and products that Marx regards as the realm of *quality* which is linked directly to the body in its phenomenological dimension: ‘Use value is therefore quality; it is the life of the body, of existential or phenomenological experience, of the consumption of physical products, but also the very texture of physical work and physical time’ (Jameson 2011, 19). As mentioned before, use and values-in-use (concrete objects) are by nature contingent, particular, and qualitative. Objects cannot be reduced either to a bundle of its sensuous qualities nor to ‘accidents’ as Harman (2011, 24) rightly reflects upon Husserl’s concept of *Abschattungen*. Yet, although objects are less than these sensory properties, they cannot exist without them.

If labour always presupposes collaboration among individuals in order to produce objects in the first place, why consider it merely as a biological relation between a subject and its object? If, thus, labour is intrinsically a social endeavour, why consider it hypothetically as an isolated relation between a human being, his tools, and nature? This brings up the question of *abstraction* as both method and reality. For even Marx himself deemed necessary to exclude the social dimension of labour first in order to analyse the labour-process *in general*, as a common category to all human societies throughout history.² This was not mere accident, and apart for it being carried out for ‘analysis sake’ suggests, as Ollman (1993, 26) explains, that abstraction has at least three different meanings for Marx – not exclusively for him though: 1) a mental activity which subdivides the world into conceptual categories; 2) the result of this activity, or a conceptual totality and its parts; and 3) reductionist and isolated mental categories which become the basis of dominant ideologies and practices. A fourth meaning should be added to this list which has greater relevance for the discussion: *real or concrete abstraction*. Marx never used this term, but it is implied throughout his late writings. Other thinkers have developed this concept from the standpoint of commodity exchange (Sohn-Rethel 1978, 17ff) and space as commodity (Lefebvre 1991, 27; Stanek 2008). For Marx, to consider labour as a universal activity regardless its particular location, individuals involved, and historical period, has the purpose of showing how this abstract definition of simple and average labour could only have emerged within the framework of bourgeois society:

(...) this abstraction of labour as such is not merely the mental product of a concrete totality of labours. Indifference towards specific labours corresponds to a form of society in which individuals can with ease transfer from one labour to another, and where the specific kind is a matter of chance for them, hence of indifference. Not only the category, labour, but labour in reality has here become the means of creating wealth in general, and has ceased to be organically linked with particular individuals in any specific form. Such a state of affairs is at its most developed in the most modern form of existence of bourgeois society – in the United States. Here, then, for the first time, the point of departure of modern economics, namely the abstraction of the category 'labour', 'labour as such', labour pure and simple, becomes true in practice. (Marx 1973, 32-33)

Labour as 'real abstraction' comes about only when commodity production is generalised, in other words, when labour itself becomes a commodity with a value, a use-value and an exchange-value. This could only have happened when *value* slowly emerged as the law which regulates the economic structure of society. Under these conditions, labour is no longer particular but universal, no longer concrete but abstract – i.e. productive expenditure of human energy in general. The similarities with this definition of labour and the functional circle are plain to see, with one exception: only with Marx *abstract labour* becomes the force that retroactively acts upon society, because it is defined on account of its social role – specifically, the determination of values and exchange-values –, whereas Uexküll remains within the phenomenological realm. Notwithstanding, the functional circle describes an actual biological process common not only to human beings but most animal species as well. For Uexküll, objects are the result of an *exteriorisation* of our subjective biological structure, whereas for Marx, objects are the product of an *objectification* of our particular activities and purposes, which in turn reflect our living material conditions. Hence, the circular movement is asserted by both: from the external world to our brain and then back to the world, changing it continuously and changing ourselves in the process. Marx describes it as follows:

In the labour-process, therefore, man's activity, with the help of the instruments of labour, effects an alteration, designed from the commencement, in the material worked upon. The process disappears in the product, the latter is a use-value, Nature's material adapted by a change of form to the wants of man. Labour has incorporated itself with its subject: the former is materialised, the latter transformed. That which in the labourer appeared as movement, now appears in the product as a fixed quality without motion. The blacksmith forges and the product is a forging. (2011, 201)

Coordinated actions with a definite aim become 'embodied' in the object produced, but as stated earlier both actions and result must pre-exist in the mind of the worker. However, the resulting object is far from 'static', for it must serve subsequent actions that will consume it; furthermore, it can also serve this purpose by re-entering the production process as means or tools. The structure of these actions must be signalled on the object. Both of these purposes make objects values-in-use, and in that respect they are defined by the particular conditions and aims whereby they are produced – they are *concrete useful objects* resulting from *concrete useful labour*. But if objects are produced for being

exchanged with other objects, the only thing that matters is the *quantity* of average labour-time needed for their production, so they can be compared with each other. Paradoxically, the labour-time – and the actions carried on within that time – that measures that quantity is regulated by the products of that very same labour – namely, by their value relation (Marx 2011, 86). They are, therefore, *abstract social objects* resulting from equally *abstract social labour*.

The uncanny nature of Marx's definition of *value* resides in its 'immaterial-yet-socially-objective' character: for commodities to have value means that they count only as 'homogeneous congelations of undifferentiated labour' (Marx 2011, 52). Marx used terms like 'congelation', 'crystallisation', and 'objectification' alternately to illustrate how concrete labour and its product become abstracted as values in commodity exchange, and how this is 'not some purely subjective illusion or individual whim but rather a social fact, a social reality we neglect at our peril' (Jameson 2011, 26). The labour-value embodied in commodities, then, has a purely social existence, stripped away from any particular quality. Here, the object counts only as the underlying *time-structure of the activity of labour* and not as a material useful thing. Thus, the object is no longer a concrete chair, but a set of instructions distended in time, and indispensable to build *any* chair in a definite amount of time, this latter ultimately determined by what society requires as 'socially necessary' under given social and technical conditions. Moreover, as *abstract object*, the chair also represents a set of instructions to use it – whether productively (means of production) or unproductively (means of subsistence). What sorts of actions then, determine the nature of these objects?

The Twofold Dimension of Human Acts

The problem now is how to specify the kinds of actions carried out during the labour-process, and what is their relation to architectural objects. For the comparative analysis of the theories of Uexküll and Marx raises the question, once again, of the universal and the particular. In the biological and phenomenal approach, the functional circle is clearly a universal process, common to all human beings. But it is also a concrete phenomenal engagement between a subject and an object. Similarly, the social premise of value implies both, a concrete production process, and an abstract homogenisation of all qualitative differences among labour activities. Hence, not only objects are imprisoned between these two poles, but also the actions they entail. In the following, I will suggest that it might be that objects, on account of their abstractness, are the crucial terrain where commodification has taken place on a spatial level with the advent of capitalism.

Labour-time is a quantitative magnitude, and as such, completely non-spatial, just as the sensations we form in our brain and project onto external objects. When performing labour, human actions are as varied as the social division of labour. During this process, actions must be planned in advance and performed in a coordinated way which assures the realisation of the purpose intended from the beginning, for man 'not only effects a

change of form in the material on which he works, but he also realises a *purpose* of his own that gives the law to his *modus operandi*, and to which he must subordinate his *will* (Marx 2011, 198). Hence, actions are regulated by our will. Free and spontaneous movements are subjected then, to a temporal-directional structure of rules and instructions laid beforehand. It can even be suggested that this is the case not only in the labour-process, but in society as a whole. Just like the rules in sports and games, for example, human activities are regulated by *social objects*, which are embodied in all things that have value-in-use for us. This *social structure of activity* underlies, therefore, all human motions, labour being the most evident and relevant case.

There is one concept within architectural theory that could explain how things turn into objects, and how these in turn regulate our actions: the concept of *human act*. Unfortunately, so far it has been scarcely formulated, yet it can be hopefully traced back and reconstructed. Put in simple terms, a human act is 'the abstract structure of action' (De la Cruz 2000, 139). In contrast to notions like use, action, activity, and function, I will suggest that *human acts* have an abstract and substantial character in architecture. Thus, this concept must first be sharply distinguished from these apparently similar notions. These were developed within the Modern Movement and represented an attempt to find the objective basis of architecture. Nevertheless, according to Lefebvre (1991, 144, 273, 369) and Adorno (1997), for instance, function was merely an abstraction from real use, and ultimately served as the base for the 'taylorisation' of architecture (McLeod 1983). Furthermore, bodily movements and simple actions we perform to use something cannot be regarded as substantial, for they vary according to the concrete situation in which they are performed. We can swim in various ways and with diverse techniques, but the *act* of swimming, along with its basic rules, underlies all those possible variations. The similarities with the concept of *object* are evident. However, problems arise as soon as examples based on institutionalised practices are left behind – such as sports or dancing – and everyday practices – such as working and dwelling – are taken into account.

Two pioneers in raising the concept of *human act* were Juan Borchers and Alberto Cruz, both renowned Chilean theorists and architects from the 1950s and 1960s. Cruz had his own vision of it which he called 'architectural act', and which was closer to a notion of 'creative act' in a joint experimental endeavour between architecture and poetry (Cruz 2005; Pérez Oyarzun 1997, 12-14; 2010, 3-4). This definition drives him away from the meaning currently pursued. On the other hand, I have emphasised the major influence Uexküll and Van der Laan played in Borchers' theory, and these surely were his main sources for proposing the *human act* as the substantial and specific element of architecture. Other attempts to specify this elusive realm have been made, for instance, by Bernard Tschumi with his concept of 'events' (1996, 139-149; 1994, 10, XXI). His approach, though highly experimental, lacks empirical rigour and ends up retreating into an analogy between literary narrative and architecture. On the contrary, for Borchers, *acts* are not a matter of analogies, but an actual and measurable relationship between the human body and the architectural work:

The act is the simplest unit in architecture; it is the element, such as colour in painting and sound in music.

An act contains a number of concatenated impulses that are crystallised actions into things, which are the perceptible bearer of objects.

A wall is an obstacle to the way. A staircase facilitates ascent and descent (...) They are immobilised actions. (Borchers, quoted by De la Cruz 2000, 136)

The context of these ideas has to do with Borchers' attempt to define the specificity of the discipline of architecture, detaching it from others, and leading it towards its autonomy (Borchers 1968, 41, 118-122, 145; Pérez Oyarzun 1997, 11). Through a radical critique of the visual and sensory bias of the Modern Movement, he deemed necessary to identify the specific sense around which architecture should be centred, just like painting is on sight, sculpture on touch, or music on hearing (1968, 101, 118). He was also extremely critical of both the professional and academic practice of architecture during the 1950s. Consequently, he proposed to base architecture in a new sense: the totality of the human body taken as one great organ (1968, 118, 169), in such a way that architecture could transcend a mere aesthetic organization of sensations (1968, 116). At first, this may seem an obvious fact, but his proposition grows in complexity: for the entire body to be the foundation of architecture means that the latter has no privileged or specific sense to which appeal. The fact that until that moment nobody had identified this specific sense was one of the reasons why, according to him, architecture was in a confused and undetermined state, paradoxically looking for its own specificity in other fields of knowledge (1968, 101). Although the reach and depth of Borchers' theory exceeds the current exposition, it is important to contextualise – however briefly – his concept of *the act*, which is grounded on the search for the specific 'brain organs' that are responsible for our perception and bodily responses to the outside world.

Uexküll also sought to identify, within the brain, these central organs. He found a *central receptor* or *perception organ* (*Merkorgan*) capable of unifying the content sensations of the sensory circles to form our *Merkwelt*. He called it *apperception* or *plastic organ* – taking the former from Kant (Uexküll n. d., 57-58). But he never specified that motor part of the brain responsible for giving nexus to order sensations (coming from the impulses circles, forming our *Wirkwelt*). This *central effector* or *action organ* (*Wirkorgan*) he called it *will organ*, but apart from linking it to a 'memory organ' which stores the 'rules of movement', he admittedly left it undetermined (n. d., 140). Yet, he did develop a complete biological theory which served as the basis for later developments in biosemiotics (see Uexküll 2010), and in which he acknowledges the central importance of the active responses of man and animal towards the world: 'Living organisms, especially animals, can perform actions that are not simple effects of particular properties, but that thanks to a uniform constructive plan, are true acts' (n. d., 65). Borchers took and developed these notions as he saw them as the only way to decant architecture 'towards its radical base' (1968, 119). I have mentioned that, for him, *abstract objects* are the substance of architecture, and I also linked this assertion to the phenomenological approach of Husserl. Following Uexküll then, he defined our *will organ* as 'the centre of permanent and spontaneous activity that sets in motion the imperative organs of actions and whose rules are stored in an organ of memory

which preserves the rules of movement' (1968, 120), and *impulses* as 'certain suggestions of the will that serve for the execution of definite coordinated movements of the muscles' (1968, 147).

The whole process of the functional circle, which begins with a *perception* – brought about by the *plastic organ* – and ends with an *action* – launched by the *will organ* – is conceptualised by Borchers as the basis of human acts. But he focuses on the impulses circle and the will organ as he sees a 'need for grounding architecture as a phenomenon of the will and not as a phenomenon of the senses' (1968, 118). The particularity of this argument is that by focusing on the will it goes beyond the notion that the architectural work affects us exclusively on a sensual-emotional – and ultimately purely subjective or psychological – level. On the contrary, what implies is that architecture itself is the product of our 'objectified will' – our 'crystallised actions'.³ Therefore, if human acts constitute the fundamental element with which the architect can constitute its objects – i.e. the architectural work understood as a concatenation of multiple objects – then, they are nothing more than his subjective will put outside of him in the form of 'congealed actions'. Put it bluntly, *acts* are 'crystallisations of the will' (Borchers 1968, 171); they are the 'petrified' structure of the actions that constitute *objects*. It is difficult to clearly see the difference between both *acts* and *objects*, as Borchers himself used them alternately.

As can be seen, the similarities with Marx's terminology are at least astonishing. Let me suggest that, in pointing out this parallelism, two distinct definitions of human act emerge: 1) the abstract *structure of activity*, which underlies and regulates our otherwise 'spontaneous' actions – e.g. matrimony / get married; dinner / to eat; labour / to work, and so on (Fig. 6). 2) *Crystallised or immobilised unitary actions*, which remain in a 'latent' state within concrete objects – e.g. entrance / to enter; corridor / to walk; staircase / go up or downstairs, and so forth (Fig. 7). The first definition has basically a social and immaterial character, whereas the second is essentially architectural – though these latter examples must not be understood as material objects, but as elementary temporal and directional signs. In both of these cases *act* and *action* can be clearly distinguished: the former is always a noun, whereas the latter, a verb.

I can now clarify the implications of the *theory of the act* for the *theory of value* and vice versa, with the aim of determining the grounds for the relationship between the work of architecture and the development of *capital*. This latter category has yet to be introduced, since its complexity and historical implications need further elaboration in the next chapters. What are, then, the common aspects of these concepts, one belonging to architecture and the other to social theory and economics? The process of 'objectification' seems to be the first shared category. On one hand, actual labour becomes *embodied* in commodities thanks to its abstraction into average time units: our concrete practice of making a chair turns into a quantitative measure, its value, so we can sell (exchange) it on the market. On the other hand, real actions become *materialised* in things which 'contain' them as generic objects: our mental scheme of what makes a chair turns into bodily actions that actually build a concrete chair which 'contains' that very same general scheme

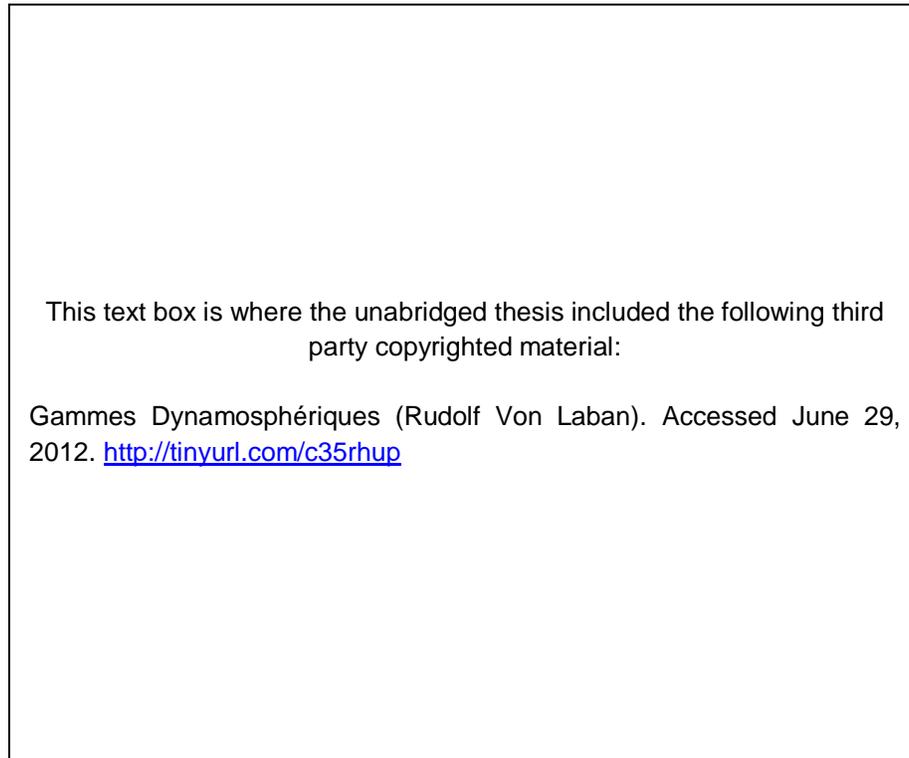


Fig.6. Human acts as the abstract structure of activity (social relations)

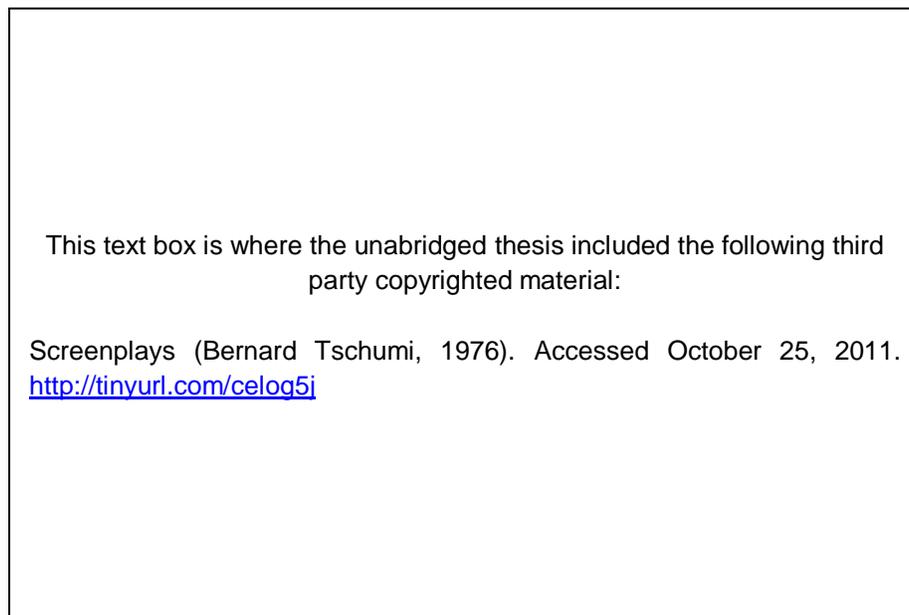


Fig.7. Human acts as crystallised actions (architecture)

which is common to all particular chairs. As can be seen, 'objectification' plays a different role in each of these examples. On the first, it means that a concrete activity turns into an abstract *measure* (time) which is social, since it designates a value-for-exchange with other commodities. On the second, it means that a concrete activity turns into an abstract *scheme* which is also social, but remains in the realm of values-in-use and, therefore, it is 'activated' whenever we engage with an object. Consequently, the abstractness of *value* has no spatial implications in itself: an exchange can occur in any place at any time, nowadays without even requiring physical presence. Conversely, although *acts* are non-spatial schemes, they always relate to a spatial component: for going downstairs, or walking through a corridor, we only need to know our departure, stop, and arrival points, that is, the connective relations we need for moving about; the spatial figure of the staircase or the corridor are secondary, just like a transit map on which the only thing that counts are the connecting lines regardless the actual form, scale, or distance. Borchers understood this, and for that reason he thought of *acts* as *figures of time and connection* rather than space (1968, 173). He relied on graph theory and topology in order to 'measure' them, and lead him to conclude that 'in an act, there is a potential kinetic energy' (quoted by De la Cruz 2000, 137), hence his definition of architecture as 'physics made flesh' (1968, 173).

How is it possible that the immaterial realm of value-relations comes to dominate the material sphere of use-values? Clearly, on the grounds of its social objectivity – i.e. on its embodiment in those very same use-values. Therefore, Marx regards commodities as 'social things whose qualities are at the same time perceptible and imperceptible by the senses', and then he compares this with 'the same way the light from an object is perceived by us not as the subjective excitation of our optic nerve, but as the objective form of something outside the eye itself' (2011, 83). This is a quite interesting comparison, for Uexküll asked himself something similar when trying to unravel how we are able to recognise objects:

How do we manage to see *sitting* in a chair, *drinking* in a cup, *climbing* in a ladder, none of which are given perceptually? In all the objects that we have learned to use, we see the function which we perform with them as surely as we see their shape or color. (1957, 48)

Therefore, both commodities (as values) and objects are imperceptible to our external senses, yet 'perceptible', in the case of objects, to our internal senses which perceive the 'operational meaning' Uexküll describes in his example. This is nothing more than the activation of our *bodily memory*, which immediately unfolds the required coordinated rules of movement, and even creating new ones if necessary, as when we learned to ride a bicycle with training wheels, and then to do it without them. With commodities *qua* values it is not that simple: for we only become aware of their retroactive power to regulate our social relations, when we exchange them in the market – i.e. by buying or selling. Hence Marx's notion of the *fetishism of commodities* which refers to the mystifying nature of the realm of exchange in which, as it were, the concrete social relations between producers become eclipsed and appear as properties of products themselves (Marx 2011, 83; Fine 2001a). This raises the possibility that obje

cts and acts, fundamental elements of architecture, have become commodified and fetishised in such a way, that it is almost impossible to distinguish a non-commodified substratum within them. The regulated and coordinated movements we learn through our lifetime are, of course, socially instituted and biologically grounded; hence, just like there is a *socially necessary labour-time*, which is concealed from us through exchange, there is a *socially instituted conduct*, which is represented by *human acts* hidden within all objects, including architectural objects. As soon as these dimensions become intertwined, architecture becomes just another 'instrument' for disciplining our motions to fit the pace of the *law of value*⁴, which seeks to diminish labour-time as much as possible and so shorten the cycle of production and expansion of value. As I mentioned, this is not exclusive to labour activities, since a wider definition of the notion of production allows comprehending how all human activities are implicated directly or indirectly in the social production of value.

Closing Remarks

The path I have followed in these three chapters has taken us through a progressive unfolding of many concepts. I began with the contradiction and organic unity between nature and man, in which the passive body was defined as organically linked to the former, and the labour of the active body as the potential overcoming this contradiction through the production of a human world (architecture). Then I moved to define the specific order on which architecture is grounded, distinguishing things from objects through a biological and phenomenological approach. Finally, I focused on the realm of productive human activity to understand the basis of the relationship between objects, human acts and value. In the following chapters I will expand on these issues from an increasingly historical standpoint which will seek to explain the nature and fate of architecture under capitalist societies, and the possibilities for radical transformations.

Part II
The Production of Architecture under Capitalism

4

The Social Production of Architecture

Architecture as Means of Production

To establish the role of architecture within capitalism as a system is the task ahead in this second part of the analysis. If the hypotheses outlined in the first one are valid, then this problem could not have been addressed directly from the beginning. For my concern is not just determining various kinds of relationships between architecture and capital, but to prove their internal and structural interdependency in such a manner, that a possibility for changing it can be effective – and not mere rhetoric. Hence, only by starting the analysis from the most elementary categories concerning the substance of architecture (objects) and capital (value) I can now begin to build into the complexity of the historical analysis of a concrete case study. In this chapter I will clarify and extend the basic concepts that will be put forward into such analysis, considering them first in their general form – i.e. independent from the capitalist mode of production. These emerge out of the chain of categories developed in the previous part, in which the centrality of human activity was established as a fundamental *mediation* between our objective world (first and second nature) and the social life which takes place in it. Thus, contradictions between nature and man, natural and artificial, things and objects, use and exchange, objects and values, concrete and abstract, subject and object, can scarcely be understood without the mediation of men's social actions.

Concerning the distinction between *human act* and *human action*, for example, both Lefebvre and de Certeau acknowledge – at least implicitly – such difference. The former from his 'rhythm-analysis', and the latter from his concept of 'everyday practice'. Lefebvre uses, for instance, the term *gestural system* to refer to rhythmized actions as 'the basis of ritualized (and hence coded) rules' (1991, 214). For his part, de Certeau talks about *everyday practices* as 'ensembles of procedures' and 'schemes of operations and of technical manipulations' (1984, 43); also his distinction between *strategies* (abstract codified practices) and *tactics* (creative appropriation of those codes) roughly matches that between *acts* and *actions* (de Certeau 1984, 35-39).

Lefebvre's concept of *rhythm* is especially relevant here, since it not only relates to the 'pace' of the human body and its biological or cyclical rhythms, but more importantly to the 'colonisation' of them by the artificial and linear gestures of labour, namely: *social rhythms* (Lefebvre 2004, 8). According to him, the idea of a *rhythm analysis* and the 'production of social time' was meant to put the key 'finishing touches' to his theory of the production of

space (1991, 405). Rhythms are 'sequential relationships in space (...) a relationship between space and time' (Lefebvre 1991, 206), or more precisely an 'interaction between a place, a time and an expenditure of energy' (Lefebvre 2004, 15). Lefebvre is very emphatic in pointing out that there is no rhythm without repetition and difference, and more importantly without *measure*; and not only this: since they depict a spatio-temporal relationship, they are a 'measuring-measure' – like 'tree-ring dating' or a factory assembly line (2004, viii, 8; 1991, 175). He also sought to demonstrate how this notion of rhythm could bring Marx's quest for social relations concealed within commodities to its limit expression.

The rhythms of the human body are directly related to its physiological capacities, hence to its labour-power. As seen earlier, the capacity to perform productive activity is one of the three basic factors of the labour-process – work, instruments, and raw materials. These point towards different dimensions: the activity of the worker, along with its rhythm, is the *motor force of production*; instruments and technology (including knowledge) are an extension of this force; and raw materials are the subject worked upon and transformed into products. These two latter form the *means of production* – i.e. necessary conditions for the setting in motion of the process (Marx 2011, 200-201). Instruments such as hand tools, machines, computers, techniques, methods, and the like, serve *directly* in the production process, whereas other sort of instruments – not often thought as such – are used *indirectly* as the setting within which the whole process takes place, and whose pre-condition is the existence of nature as such:

Once more we find the earth to be a universal instrument of this sort, for it furnishes a locus standi to the labourer and a field of employment for his activity. Among instruments that are the result of previous labour and also belong to this class, we find workshops, canals, roads, and so forth. (Marx 2011, 201)

Architecture falls, then, within this general category. Is it limited simply to factories and warehouses? No. Obviously, productive labour – labour which produces use-values – does not happen only at factories; offices and facilities of all sorts must be included. But the role architecture plays as means of production is wider. Architecture is simultaneously a means of subsistence and of production, even if it does not serve this latter purpose directly, for example, as the means of reproduction of the labour force in housing settlements. In this respect, Lefebvre expanded Marx's concept of *production* to include not only things in space, but space itself as the most general of human products (1991, 219); and since products can be also means or instruments, space is also the 'most general of tools' (1991, 289).

Before I can continue, two closely tied concepts that have been flowing through this exposition need clarification: *space* and *production*. This is not the place to give a complete account of these complex notions, but to point out some of their basic features developed by critical theories on the matter (see Lefebvre 1991; Morales 1969; Suárez 1986) and so to avoid possible misunderstandings. These concepts will be refined as the discussion advances. The first thing that calls attention to Lefebvre's concept of space is

its inseparability with production: space is always a social product, hence, paradoxically, 'the concept of space is not in space' (Lefebvre 1991, 299). Space as an empty and homogeneous abstraction, as neutral void or volume, is thus replaced by the notion of *social space*. This social character gives it an *instrumental* role within society: it is not only socially produced, but a basic condition for that production, 'at once result and cause, product and producer' (Lefebvre 1991, 142); thus it 'cannot be reduced to the rank of a simple object' (Lefebvre 1991, 73). If *production* is what gives the notion of space its social meaning, then productive activity itself, namely the *social practice* of labour, is at the core of the understanding of social space. Once again *human praxis* constitutes the locus and root of our objective human environment. For Lefebvre (1991, 179) it is clear that this *practice* goes far beyond labour, to include any expenditure of energy that effects a change in the world. Consequently, *production* enjoys at the same time a broad and a narrow meaning (Stanek 2011, 140). Following the concept from Hegel to Marx and Engels, Lefebvre notes how it possesses an even greater abstract universality than labour – as it was considered by classical political economists. Yet, at the same time, it is a concrete concept, for it only has sense so far as we ask 'who produces' and 'how it produces': it is a *concrete or sensible abstraction* (Lefebvre 1991, 69; Marx 1859, 113). To avoid reducing it to its pure 'economistic' sense or to dilute it into general production – of ideas, symbols, knowledge – Lefebvre goes back to *praxis* and its 'immanent rationality' (Lefebvre 1991, 71). Production goes beyond material manufacturing, not to fall into the indeterminate realm of knowledge, but rather to include the production and reproduction of social relations (Fine 2001b, 448). Thus, both space and production attain their full meaning only in relation to a *social practice*.

Practice inevitably entails *social relations* between individuals and nature (things), individuals and instruments (objects), between individuals themselves, and between groups of individuals. Of these relations there is one kind that has primacy over all others (Harman 1998b, 15): these are the *relations to nature* (via social labour), since it is only by producing a human world out of nature that we are able to survive within it. Thus, the relations to nature – which was specified in the first chapter from a biological standpoint –, are in fact *social relations of production* (Lefebvre 1971, 62-63). Relations of production are the relationships in which men necessarily become involved in the course of production (Marx 1859, 4; Walker and Gray 2007, 256). These can be understood either as *technical relations* (individuals to things-objects, to other individuals, or to a group) or as *economic relations* (between groups of individuals), and their primary function is to put together labourers and their means of production (productive forces) under a certain organisation in order to produce their livelihood (Shaw 2001, 235). For Marx, these relations arise in accordance with the development of the productive forces society has at its disposal at a given point in history – i.e. improvements in techniques and organisation of the labour-process, as well as the production of new instruments, technology and knowledge. Hunter-gatherer relations of production, for instance, were limited by their own organisation and means of labour – i.e. nomad bands and rudimentary tools. If their productive forces would have been more advanced, this immediately would have changed their social relations in the broad sense (Harman 1998b, 17). According to Marx then, the

priority of the forces and relations of production with respect to other social relations, make them the 'real foundation' upon which all other social relations rest (1859, 3). Therefore, architecture and, more generally social space, enjoys a privileged place within what has been known within Marxist theory as the *economic base* of society – in particular as one of the forces of production (Lefebvre 1991, 349; Cohen 2000, 51).

Architecture as Objective Ideology

If the economic structure of any society is composed by the forces that produce material life and the social relations such process entails, what are then, the other social relations which derive from them? All those activities which are not directly involved in the production process are nonetheless related to it – they are, as it were, 'built' upon it. These include political, legal, religious, cultural, and ideological relations in general. Marx famously summarised the underlying premises of this argument stating that 'the mode of production of material life conditions the general process of social, political and intellectual life. It is not the consciousness of men that determines their existence, but their social existence that determines their consciousness' (1859, 4). This passage paves the way for the argument of a fundamental and inevitable conflict between the economic *base* and the 'ideological' *superstructure*¹ which rises upon it, leading ultimately to a process of social revolution. What is the status of architecture in this scheme? To answer this question the full complexity of Marx's argument needs to be addressed. For what is at stake is not merely a theory of the general structure of society, but a theory of the dynamics of social change. As Marx puts it:

At a certain stage of development, the material productive forces of society come into conflict with the existing relations of production or – this merely expresses the same thing in legal terms – with the property relations within the framework of which they have operated hitherto. From forms of development of the productive forces these relations turn into their fetters. Then begins an era of social revolution. The changes in the economic foundation lead sooner or later to the transformation of the whole immense superstructure. (1859, 4)

According to Harman, what is implied here is more than a single distinction between *base* and *superstructure*. The asymmetry is double: between the productive forces and the existing relations of production, and between the latter and 'outdated' relations of production established and controlled by superstructural or non-economic institutions (Harman 1998b, 26, 28). *Economic relations* of production have been defined as a relationship between groups of people. At first, these groups are defined by their relation to the surplus product, and they arise at a certain point in the development of the productive forces, as the social division of labour grows in complexity. Following Marx, Harman (1998b, 19; 1998a, 13) argues that at an early stage in any social formation, the exploitation of one group over another is a basic condition for the advancing of the productive forces. This means that given a low surplus production above of what is needed for survival, the only way to further develop productive forces is if one social group appropriates this surplus and uses it for its own interests instead of distributing it among

the rest of the population – in which case there would be not enough surplus input for developing production. Following the passage from hunter-gatherer to agricultural societies, these exploiting groups originated first among those sections of the population which forged new relations of production – such as agriculture and trade – or withdrew from material labour. But this could only have happened if improvements in the productive forces were already underway. Harman notices that Marx is emphatic in stating that ‘relations of production ‘correspond’ to forces of production, not the other way round’ (Harman 1998b, 26) – and this means that productive forces are always more ‘dynamic’ than the relations they entail (1998b, 26). Why? Because the essential aim of individuals working together is to increase their means of subsistence by finding new ways to produce them more effectively. In order to achieve this, they inevitably have to engage in new relations of production which progressively replace the old ones. Hence, it is the fundamental objective of finding new ways of controlling nature – along with the human world which derives from it – that determines what sort of production relations best suit this purpose (1998b, 26). The internal division of these relations matches their temporal division: *economic relations* tend to detach from direct production as they presuppose the economic control of the productive forces and their surplus product by one group of individuals – which uses this power to exploit the rest of the population forcing them to work for them. No sooner this group seizes command over these forces that they start to ‘fix’ relations of production and exploitation by way of institutional arrangements – which can take juridical, political, religious, or ideological forms. By contrast, *technical relations* of production are always evolving given their direct implication with labour-power (see Marx and Engels 1968, 12); and secondly, improvements in productivity requires new techniques and technologies, which in turn change relations between individuals in the course of production, and ultimately challenges established economic relations. Technical relations are always dynamic whereas economic relations ‘crystallise’ into non-economic structures which serve the function of securing the ruling group’s monopoly over the productive forces. Therefore, the basic thesis of this historical approach is that ‘the different socio-economic organizations of production which have characterized human history arise or fall as they enable or impede the expansion of society’s productive capacity’ (Shaw 2001, 235).

To advance an outline of the relationship between architecture and the ideological superstructure of society, the ‘usual’ understanding of the former must be transcended – i.e. as buildings ‘in general’. We have already advanced some steps in this direction on the previous chapters, by outlining its ontological, material, and biological base. From this, at least three different meanings can be asserted: 1) what could be called *Architectonics*, which refers to the architecture inherent in our body’s biological structure. 2) *Everyday architecture* which arises spontaneously out of immediate needs for shelter, trade, and so on, and which does not depend on a discipline of knowledge to exist and develop itself. 3) *Architecture* as a major art form, subject to discipline and notation (Borchers 1968, 27). Whether the vast majority of the built environment can or can’t be called ‘architecture’ depends entirely on the position we adopt regarding these three definitions. Architecture as the product of a discipline presupposes the existence of a cultural realm, understood as

the development of artistic and intellectual practices. Here, architecture is set by its own institution which is not independent of the development of the economic base, but rather falls within the general aim of any superstructure to fix and legitimate the ruling group's control over production. Early on in history, legitimisation of exploiting relations started to take legal forms, most notably in Roman civil law with *landed property* rights – whose architectural 'expression' was the Roman villa –, and which eventually gave birth to a class of landlords between the late imperial and early medieval epoch (Lefebvre 1991, 243, 252-253).

But the superstructure is not just a set of institutions which regulate and fix economic relations. Different 'forms of consciousness' or 'mental conceptions' about the world emerge alongside it, which Marx called *ideological forms* (1859, 4). Now, the sense given to ideologies here is neither general nor positive (Larraín 2001, 248). Since the superstructure, in its inception, is nothing but the legal and political expression of material social relations of production, ideologies would be the way in which these expressions coalesce into more or less formed system of thought – whether philosophical, political, scientific, artistic, religious, and so on. Marx and Engels pointed out that 'in all ideology men and their circumstances appear upside-down as in a camera obscura' (1968, 11), so they understood ideologies as a somewhat 'deficient' or 'distorted' forms of consciousness. However, the point that later developments and criticisms have often missed by misinterpretations of Lukács' notion of 'false consciousness' (see Larraín 2001, 251; Lukács 1971, 50-72) is that in the original Marxian sense, ideology is not simply a 'false' or 'wrong' conception about a true objective reality, not merely an illusion, but rather it is social and material reality itself which is contradictory and 'upside-down' (Larraín 2001, 248). Thus, ideology is a kind of imaginary or mental 'resolution' of real contradictions in the mode of production of a given society. Furthermore, distortion or misapprehension also implies concealment of those contradictions. I have already mentioned the realm of exchange as the distorted thing-like appearance that relations of production take when embodied into the value of commodities under capitalism (see Chapter 3, 59):

A commodity is therefore a mysterious thing, simply because in it the social character of men's labour appears to them as an objective character stamped upon the product of that labour; because the relation of the producers to the sum total of their own labour is presented to them as a social relation, existing not between themselves, but between the products of their labour. (Marx 2011, 83)

From this stems that the contradictions implied in *commodity fetishism* are at the root of all ideology. The realm of market exchange gives way to a 'world of appearances' which, nonetheless is absolutely real and has real effects on production and elsewhere. This world of free individuals buying and selling the private products of their labour is real, but it conceals the deeper level of production relations – most notably, exploitation as the source of surplus-value (profit).² Thus, Marx sees commodity fetishism and the market as a 'real' distortion and concealment of social relations of production, the material base of society. This mechanism could only have flourished under bourgeois society, and he contrasts it to feudalism, in which social relations of production were 'not disguised under the shape of

social relations between the products of labour' (Marx 2011, 89). But fetishism should not be confused with ideology, which arises only as a reflection in consciousness of the surface appearance of commodity exchange.

The strange nature of a social reality which is in itself deceiving has led some to claim we are 'living a lie' or that the social world is itself 'ideological' (see Hawkes 2003, 171; Žižek 1994, 305). However, this presents the problem of broadening the concept of ideology to the point it becomes 'politically toothless' (Eagleton 1991, 7). Architecture is especially prone to fit this argument, since it is both a product of material and ideological forces. But it would be far too simplistic to end the discussion by posing it as merely the product of the architects' ideology. On the contrary, what the problem seems to raise is a *double concealment*, one which is practically and materially real (market exchange), and another which reflects this reality in thought, retroactively reinforcing, instituting, and naturalising it. This dual concealment of relations of exploitation (class relations of production) effectively assures the continuous reproduction of its material conditions, hence securing the position gained by the ruling class and its hold on the means and products of labour.

Architecture stands in an odd place regarding this general scheme. On one hand, it is the product and condition for sustaining everyday life and labour – and as such, subject to fetishism within bourgeois society, under which it *appears* as a passive, neutral and purely visual-spatial object. On the other, it is produced according to this very 'delusive reality' that institutions and construction industries internalise into their ideologies and representations, thus impacting back on production. A building conceals the fact that it is the 'objectification' of social relations, and its own 'design' reproduces and obscures this fact. Hence, the dilemma is far from being one of either truth or falsehood. Ideology does not originate in men's minds, but in their actual social relations. Consequently, it is not something simply 'imposed' by superstructural institutions such as the state, the media, schools, or universities, but rather it stems out from the basic way in which production and exchange are organised within – in this case – the capitalist mode of production. This is the crucial ground in which it should be confronted, not merely at the level of 'ideas'.

Spatio-temporal Contradictions and Emancipation

On the previous chapter, I pointed out the twofold dimension of human acts: as crystallised actions 'latent' in architecture, and as the social structure of actions underlying human activities. The first corresponds to the social substance of architecture as such: objects. The second, to the substance of our seemingly 'spontaneous' actions. Yet, both of these abstract dimensions cannot exist by themselves, they need a particular content: objects require the perceptual properties of things to be realised, whereas the regulated structure of motions needs actual and concrete practices in order to exist. Thus, an immaterial and social structure underlies both concrete *objects* and *practices*, but which at the same time it is grounded on them.

These two concrete manifestations of human acts are precisely what Marx described as the forces of production: tools (objects as means of production) and the ability to use them (labour power as practice), none of which can function by itself. I have mentioned that, at an individual level, architecture only serves indirectly in production as the setting of the labour-process. Yet, social space, the city, and architecture also have historically taken an active role in the production process. Lefebvre situates this change as consequence of a 'qualitative leap' in the productive forces of society, starting from the twentieth century onwards (1991, 357-358). This 'leap forward' of technology, knowledge, and the organisation of labour, has opened up the way for a shift from the production of things-in-space (commodities) to the production of space itself (Lefebvre 1991, 62-63). Why and how this major increase in the productive forces wasn't slowed down or restricted by the existing property relations and their superstructure (the state)? According to Marx, among the peculiarities that distinguish the capitalist mode of production from previous ones, are on the one hand, the particular way the contradiction between the forces and relations of production takes, and the contradiction between base and superstructure on the other (Harman 1998b, 31). 'The bourgeoisie cannot exist without constantly revolutionising the instruments of production, and thereby the relations of production, and with them the whole relations of society' wrote Marx and Engels (1969, 16) to point out the difference with earlier ruling classes for whom the conservation of the superstructure was a priority, thereby slowing down society's productive capacity. Under capitalism, the coercive laws of competition compel capitalists to outsell their rivals by investing in labour-saving technologies which allow decreasing labour-time and labour-power while increasing productivity. This causes investments in technology (realised or 'dead labour') to grow 'more rapidly than the source of all potential profit, living labour' (Harman 1998b, 31). For Marx, increasing productivity through investment in means of production (including architecture) over and above what is invested in labour-power, has the paradoxical effect of decreasing profits on the long run – leading ultimately to crisis (Marx 2011, 47, 54; 1959, 148-159). This doesn't mean that the role of the superstructure in preventing changes in the relations of production is precluded. On the contrary, the role of superstructural institutions under capitalism is precisely to favour the development of production through the market, while preventing changes in property and production relations by delaying crises through diverse mechanisms. According to Lefebvre, this strategy can only succeed by expanding the reach of the system into a global scale – and the use of space as a strategic tool to achieve this goal (1991; 2003, 20-21).

The classical Marxian (temporal) contradictions between forces and relations of production, base and superstructure, transformation and conservation, which under capitalism are apparently overcome, are thus actually extrapolated from the level of commodities in space to the commodification of space as a whole (Lefebvre 1991, 62, 357). This means that the only way in which bourgeois institutions have managed to improve productive forces without substantially changing relations of production (and property) has been by displacing temporal contradictions and crises into the spatial realm as a temporary solution or 'spatial fix' (Harvey 1985, 51-59). Lefebvre suggests then, this shift from classical production to the production of space is what allows for relations of

production to be *reproduced* over time and space rather than being fundamentally *transformed* (1991, 325; 2003, 20-21). By geographically expanding the market through investment in urbanisation and capital exports, capitalism is able to temporarily overcome its intrinsic tendency towards overaccumulation, hence deferring crises (Harvey 1985, 8-10, 55-56). This fact is confirmed, for instance, in the role transport and communications have played under capitalism. Capitalists are interested in reducing the time of production, exchange and consumption so as to generate profit in the least time possible. To reduce the costs of circulation of commodities – and thus the turnover time of capital³ – transport technologies must be perpetually revolutionised, they must continuously increase their speed and reduce their cost (Harvey 1985, 36). Following Marx's insights (1973, 330), Harvey explains how the temporal requirements of capital circulation tend to 'annihilate space by time' (1985, 37) – i.e. to reduce spatial barriers for circulation to run smoothly, hence reducing the time of both production and exchange. However, a major contradiction arises when the only way to do this is precisely by expanding the production of space in the form of infrastructure required by new means of transportation. Thus for Harvey, the tendency to overcome spatial barriers by producing new and improved infrastructure becomes the ultimate obstacle to be defeated: 'space can be overcome only through the production of space' (1985, 60). Capitalism must then 'destroy a part of itself in order to survive' and make way for further accumulation (1985, 60).

Besides this central contradiction, Harvey also identifies a tension between those forces of accumulation striving towards concentration of capital in the form of urban centres, and those pushing towards dispersion and fragmentation. The former are a consequence of increasing rationalisation of production and technological innovation which allow to free industry from direct sources of energy and raw materials while reducing costs arising from long-distance trade (Harvey 1985, 40). The latter arise from the self-expanding nature of capital to develop into universal exchange within a world market. Thus, *concentration* acts as means of rationalising and reducing time by overcoming spatial barriers and distances, whereas *dispersion* proceeds by geographically expanding markets and constantly revolutionising the urban landscape (Harvey 1985, 41-42). Human spaces and architecture thus become simultaneously *condition* and *barrier* for the accumulation of capital:

The produced geographical landscape constituted by fixed and immobile capital [built environment] is both the crowning glory of past capitalist development and a prison that inhibits the further progress of accumulation precisely because it creates spatial barriers where there were none before. (Harvey 1985, 43)

Thus, temporal contradictions are not simply transferred into space, since the complex spatio-temporal dynamic of capitalism generates contradictions from space itself, which are not necessarily derived from temporal ones (Lefebvre 2003, 19; 1991, 331, 333). Thus, in discussing his 'theory of centralities', Lefebvre distinguishes between contradictions *in* space (temporal or historical) and contradictions *of* space, which are far more powerful since they carry the former to a 'higher level' (world market), amplifying them by way of their reproduction (1991, 334).

What are the social consequences of the development of this kind of spatiality under capitalism? If architecture has embodied the space that capitalism has brought about (modern space), what has been its role within those social forces that had shaped the world since the eighteenth century? The centre-periphery dialectic, which Lefebvre developed out of Marx's comments on the town-country antagonism (Marx and Engels 1968, 30-33; Marx 2011, 387), implies the concentration of population, which can favour capital accumulation or act as a 'backlash' against it (Harvey 1985, 41; Lefebvre 1991, 333). At the same time, what distinguishes centrality under capitalism is its aspiration to be *total* (Lefebvre 1991, 332), thus 'expelling' undesired elements of the population towards its periphery, not to be disposed, but rather to be kept as an 'industrial reserve army' (Harvey 1985, 41). Under this situation – which was common during nineteenth century Europe and twentieth century Latin America, for example – space artificially became a scarce good, and this was precisely what marked its entrance into commodity production; hence, the contradiction between centre and periphery, concentration and dispersion, gave way to that between abundance and scarcity (Lefebvre 1991, 329, 333).

If the Marxist classical theory of the transition of one mode of production to another is not sufficient to explain the survival of capitalism, it is due to the historical neglect of the concept of land (and social space) – one of the keys to Marx's trinity formula⁴ (Lefebvre 1991, 324n11; Soja 1996, 164-183). The contradictions of space give rise to a contradictory urban space and architecture. Social space has always been the product of human activity, but the consciousness that space has fully entered commodity production, could only have emerged at the dawn of the world market during the First World War (Lefebvre 1991, 302). Avant-garde artists and architects fully embraced the idea that space had to be *produced* rather than 'represent' a given reality (de Solà-Morales 2003, 169-173), hence their ambiguous practical and political stance regarding capitalism and the industrial world. On account of its 'practical' condition, contradictions within architecture were more pronounced than the rest of the arts. Under Hannes Meyer, the Bauhaus self-proclaimed to lead an anti-bourgeois revolution in design by merging the functional requirements of the capitalist state with a proletarian ideology (Lefebvre 1991, 304). However, this did not simply mean that architects' efforts in challenging capitalist space were useless, rather it shows how the spatio-temporal contradictions of capitalism developed *through* architecture and the production of space.

The progressive imposition of the laws of capital on the working population – and thus their transformation from direct producers into wage-labourers via their dispossession from access to means of production – triggers a process of class conflict with the bourgeoisie and the landowners. Thus, *class struggle* develops out of the internal contradictions of capital accumulation; it is an objective concept because it designates the outcome of certain relations of production and property (Wright 2005, 28). It is not an externally generated phenomenon – disturbing an otherwise orderly and harmonious society –; or something explainable through psychological or moral parameters (hatred, corruption, crime rate, etc.); not even something derived from economic conditions (deprivation,

poverty, etc.) – though this surely contributes to it. Marx and Engels analyses led them to conclude that the germs of a new society were already ‘latent’ within existing bourgeois society, and it was the ‘historical mission’ of the working class to set free that potential from their capitalist fetters. This potential was technological development and the social nature of the means of production. In order to achieve this, the fundamental condition was to end the liberal-bourgeois ‘right to private property’, which in practice meant ending the use of that property to exploit workers in order to produce surplus-value.

Emancipation is a loaded – and hence dangerous – term. It’s inextricably intertwined with the concept and practice of *revolution*. Its etymology comes from the Latin *emancipare*: *ex* (out), *mancipium* (property) from *manus* (hand), and *capere* (to capture, to seize); something like ‘free from its property/hand’. Its roots, as Ross (2008, 20) suggests, are bound to the notion of property under Roman law, and its ambiguity rests precisely on this definition. The standard liberal conception of emancipation is highly abstract, defined as *freedom to* do without coercion, whereas in German critical philosophy, and later in the Marxist tradition, the concept is closer to a conception of *freedom for* self-determination – i.e. ‘the manifold development of human powers’ (Lukes 2001, 172). However, I should point out that both definitions share – from opposed angles – a conception of emancipation as a process of overcoming any ‘obstacles’ seen as the source of domination, hence their main problem is the state. In the liberal conception, the state is seen simultaneously as an impediment for the free development of capitalism and as an instrument to protect private property and ‘freedom’, whereas in Marxism, the state is seen as the political instrument of the bourgeoisie to legitimate its economic control and hold on property and, through these, its domination over the working class. *Economic emancipation* arises, then, in both cases as ‘true emancipation’ – with primacy over the political one – but from diametrically opposed definitions: for Marxism, it means the self-emancipation⁵ of labour (working class) from both capitalists and their state, whereas for liberalism it means the emancipation of capital (bourgeoisie) from all constraints. In the former, emancipation implies a fundamental *transformation* of the current mode of production; for the latter, it’s the unbridled *reproduction* of the existing one.

It is not too difficult to see that there is an immanent connection between emancipation and space. The concepts of *landed property* and *ground rent*, as means of production, are at its core, since they were the key forms of property usurped to feudal lords and the peasantry during the bourgeois revolutions. I will expand on their role and relationship to architecture in Chapter 6.

Architecture, and more generally social space, enjoys an ambiguous status regarding emancipation: on one hand it incarnates the true potential of the productive forces of society – a qualitative leap forward, as Lefebvre puts it; on the other, it embodies everything that’s fixed on existing society, hence the state as superstructure and ideology. The relationship between property, production, and the state is what concerned both Marx and Lefebvre as can be seen from the former’s reflections on the Paris Commune as the attempt to ‘set free’ the potential for a new social space:

(...) the Commune intended to abolish that class property which makes the labor of the many the wealth of the few. It aimed at the expropriation of the expropriators. It wanted to make individual property a truth by transforming the means of production, land, and capital, now chiefly the means of enslaving and exploiting labor, into mere instruments of free and associated labor (...) The working class did not expect miracles from the Commune. They have no ready-made utopias to introduce *par décret du peuple*. They know that in order to work out their own emancipation, and along with it that higher form to which present society is irresistibly tending by its own economical agencies, they will have to pass through long struggles, through a series of historic processes, transforming circumstances and men. They have no ideals to realize, but to set free the elements of the new society with which old collapsing bourgeois society itself is pregnant. (Marx 1871, 27)

Lefebvre knew that Marx's apparently anti-utopianism was in fact a dialectical utopian thinking, as can be corroborated from his idea that the production of (modern-capitalist) space was the key for a new mode of production, and ultimately a new space (and architecture):

If the *production of space* does indeed correspond to a leap forward in the productive forces (in technology, in knowledge, in the domination of nature), and if therefore this tendency, when pushed to its limit – or, better, when it has overcome its limits – must eventually give rise to a *new mode of production* which is neither state capitalism nor state socialism, but the collective management of space, the social management of nature, and the transcendence of the contradiction between nature and anti-nature, then clearly we cannot rely solely on the application of the 'classical' categories of Marxist thought. (Lefebvre 1991, 102-103)

If the foundations of a new space and architecture are already present – in an alienated and fetishised form – within existing society, then, it's a matter of 'unleashing' that potential free from the rule of bourgeois private property. If I return to the definition of architecture as the result of an 'organic exchange of matter' between human beings and their environment (see Chapter 1, 29), I can simplify my conclusion for analysis purposes, and draw a *spatio-temporal axis* whose end-points would be, on one hand, the *reproduction* of existing capitalist space and its property relations, and the *transformation* of them on the other. Hence, under this scheme, any architectural endeavour can be assessed as a concrete practice by determining towards which of these hypothetical poles it leans. In order to do so, it is extremely important not to be misled by architecture's ideological discourses which act as imaginary solutions of real contradictions or, as Tafuri puts it, as 'formulas that obscure the problem behind clouds of aesthetic smoke' (Tafuri and Sherer 1995, 47). The dialectic between base and superstructure, forces and relations of production or, in architectural terms, between *work* and *project*, will have to be measured against the background of this *reproduction-transformation axis*, and, if Marx and Lefebvre's theses are correct, the task will be to discover in the existing production of architecture, in its concrete practice, the imprisoned seeds of a new architectural practice which will be called to challenge the capitalist production of space while simultaneously paving the way for a new social space, one that cannot fail to radically transform social and property relations and vice versa.

5

Real Abstraction: Architecture as Capital

From Value to Capital

The apparently obscure notion and reality of *capital* is one of the obstacles that must be sorted out to understand its concrete relationship to architecture. Only by understanding till what extent capital is embedded in the production of architecture a way to challenge that relationship can be thought. I have shown that this problematic has scarcely been treated by architectural theory and, by contrast, most widely researched within social sciences such as geography, urban sociology, and anthropology, yet hardly reaching the sphere of 'design' (see Literature Review, 26). It should be noticed that the analysis is concerned with this particular realm and not the wider urban problematic; however, it is not possible to understand the 'architectonic level' without grasping the capitalist urban dynamics up to some extent. Clearly, the scope of the concept of *capital* alone exceeds the present analysis. Apart from the classical liberal economists and the subsequent Marxian critique, a number of theories have been developed ever since. For this and other reasons,¹ I will develop upon key selected theses within the Marxist framework, identifying those aspects most closely linked to space and architecture, while simultaneously relating these theories to the theoretical structure outlined in Part 1. Up to this point, I have established the various links existing between Marx's theory of value and the theory of architectural objects; on this ground I developed in the previous chapter an outline of the social role of architecture as means and ideology. What is now needed is a mixed theoretical and historical approach to the process by which architecture was transformed to fit the requirements of accumulation at the emergence of bourgeois society. According to the spatio-temporal scheme, this concerns the study of how certain features of the space/architecture produced by capitalist society get *reproduced* over time and the place this has in the overall *reproduction* of capitalism. I will first concentrate in a brief definition of capital in Marxian terms and the place of architecture within that definition; I will later move towards an account of the historical process of abstraction of space/architecture.

Marx's theory of value was meant to explain the laws of exchange of commodities, their social circulation, in its pure form or, as presupposed by classical political economists, as exchange of equivalents amounts of abstract or undifferentiated labour – i.e. assuming all other things, like technological change, divergence between values and prices, or any other concrete alteration, to remain equal or constant for methodological reasons (Lefebvre 2011, 77). He showed how, along the emergence and development of commodity production, one commodity was inevitably bound to assume the function of universal equivalent to all others, or the money-form. Money is the form of appearance of exchange-value, and this in turn is the mode of expression of a social relation between

commodities: *value* – the abstract or average labour time to produce a given commodity under average technological conditions. Moreover, since money is itself a commodity, it designates merely a ‘metamorphosis’ of value during the ‘social circulation of matter’, or one of its forms of appearance (Marx 2011, 117). Yet, as Jameson (2011, 13) notices, this theory of the transition from the value-form to the money-form – or from commodity circulation to money – gives no clues for the theory of capital but rather acts as the elemental groundwork upon which it is set (Marx 2011, 163). Marx pointed out that money is the first historical form in which *capital* appears but it does not coincide with it. Money can only become *capital* by circulating in such a way that increases itself during the process (2011, 164). Marx explains the impossibility for simple circulation (C–M–C, or selling in order to buy)² to achieve this since it ends in the satisfaction of wants, or in the sphere of consumption (2011, 167). By switching the terms involved we obtain a completely different form in which the process starts and ends with the money-commodity instead of a regular commodity – with exchange-value rather than use-value. The circulation of money as capital (M–C–M’, or buying in order to sell)³ ends with the original value advanced plus and increment called *surplus-value* – or in its realised form, profit (2011, 168). Marx implicitly begins to assert the question ‘where does this surplus come from?’ (Harvey 2010, 86, 92). After objecting classical political economists the idea that this surplus might be created in exchange itself (2011, 177-79) or outside of it, in individual form (2011, 183-84), Marx comes to the conclusion that there is only one place in which this increase could happen: during the consumption of the acquired commodity.

The change must, therefore, take place in the commodity bought by the first act, M-C, but not in its value, for equivalents are exchanged, and the commodity is paid for at its full value. We are, therefore, forced to the conclusion that the change originates in the use-value, as such, of the commodity, i.e., in its consumption. In order to be able to extract value from the consumption of a commodity, our friend, Moneybags, must be so lucky as to find, within the sphere of circulation, in the market, a commodity, whose use-value possesses the peculiar property of being a source of value (...) The possessor of money does find on the market such a special commodity in capacity for labour or labour-power. (Marx 2011, 185-86)

As Harvey points out, capital is not defined here as a stock or asset (as Smith or Ricardo did), but as ‘value in motion’ (Harvey, 90), or as Marx himself puts it: ‘Value therefore now becomes value in process, money in process, and, as such, capital’ (2011, 173). The secret of profit-making lies therefore, not in market exchange or consumer demand, but in the process of production of commodities itself. The circulation of capital is defined then by the general formula $M-C-M + \Delta M$ (where $\Delta M = \text{surplus-value}$). As Harvey synthesises it:

$$\begin{array}{c} \text{LP} \\ \text{M-C} \quad \dots\dots \text{P} \dots\dots \text{C-M} + \Delta \text{M} \\ \text{MP} \end{array}$$

(Harvey 2010, 121)

(...) the capitalist starts the day with a certain amount of money [M], and, having selected a technology and organizational form, goes into the market place and buys the requisite

amounts [C = commodities] of labour power [LP] and means of production [MP] (...) The labour power is combined with the means of production through an active labour process [P] conducted under the supervision of the capitalist. The result is a commodity [C] that is sold by its owner, the capitalist, in the market place for a profit [M + Δ M]. The next day, the capitalist (...) takes a portion of yesterday's profit [Δ M], converts it into fresh capital and begins the process anew on an expanded scale (...) And so it continues, ad infinitum. (Harvey 2010, 40-41)

As Marx clarifies, the conditions for this process to take place are not natural but historical (2011, 188), and these are not given solely by commodity production or money circulation – although these remain as its material foundations – but rather ‘when the owner of the means of production and subsistence meets in the market with the free labourer selling his labour-power’ – i.e. with the advent of universal wage labour (2011, 189, 189n1). After examining the circuit of capital on the same basis presupposed by the ‘free-trader vulgaris’ of classical political economists, Marx extends the invitation to leave the superficial and ‘noisy sphere’ of circulation (market exchange) and to infiltrate ourselves into the ‘hidden abode of production’ where capital is produced (2011, 195-96). The difference between the mere *production of value* (simple commodity production), and the *production of surplus-value* (capitalist commodity production) lies in the labour-time expended over and above what is paid for the factors of production (2011, 218, 220). Therefore, ‘surplus-value is the difference between the value of the product and the value of the elements consumed in the formation of that product, in other words, of the means of production and the labour-power’ (Marx 2011, 232).

Labour as such should not be confused with labour-power (Harvey 2006, 23), the former is the substance and measure of value, hence it has no value in itself, whereas the latter is defined as the ‘mental and physical capabilities existing in a human being, which he exercises whenever he produces a use-value’ (Marx 2011, 186). In analysing it as the only commodity which can produce surplus-value Marx had to demonstrate why means of production can’t create any new value. Means of production are realised or ‘dead labour’ – the past labour which produced them (2011, 217). On the contrary, labour-power is actual or ‘living labour’, which, as Marx puts it, ‘living labour must seize upon these things and rouse them from their death-sleep, change them from mere possible use-values into real and effective ones’ (2011, 204). All architecture falls under the definition of materialised or dead labour insofar as it is the result and condition of production, but only part of it can act directly as means of production. Why, say improved factory/office facilities or new and faster machinery can’t produce surplus-value? Marx’s answer is to be found in the concept of *constant capital*. Means of production can only preserve or transfer their value to the product (2011, 221-22). Since the capitalist pays for them at their full value, he only gets what he already paid for. A machine can’t work faster than its capacity, a building cannot modify its layout to make things run smoother. The values of both machines and building facilities, for example, reappear in the product without any quantitative alteration.⁴ Architecture as part of the means of production is not then a source of surplus-value. The objective factors of the labour-process, such as instruments, raw and auxiliary materials, and space, considered from the standpoint of the production of surplus-value, are thus

constant capital, since their value is invariably transferred to the product as they are consumed (Marx 2011, 232).

The value of means of production is given by the social average time to produce them. The value of labour-power is also in principle the average labour-time to produce and reproduce the labourer himself, but this is determined by the value of the average means of subsistence necessary for its maintenance (Marx 2011, 190). As Marx notices, this value does not coincide with the value actually produced by the labourer, which passed the necessary labour-time to reproduce himself, becomes an excess of labour-time, or surplus-value. Hence, the capitalist is interested in labour-power as *variable capital* (2011, 232-33) – i.e. ‘a source not only of value, but of more value than it has itself’ (2011, 215-16). This is the starting point of the theory of exploitation, which far from resting on some psychological or moral profile of the capitalist, it is an objective and structural concept, demonstrable on a formal basis: ‘The excess of the value that labourers embody in commodities relative to the value they require for their own reproduction measures the exploitation of labour in production’ (Harvey 2006, 23).

As capital is a process, a circuit for the never-ending production of surplus-value, it is difficult to see architecture as capital. However, if we think of the productive forces as definite ‘moments’ (Harvey 2006, 20) in the process of expansion of value, we have that capital goes from assuming the form of money to that of commodities and back to money. As soon as architecture steps into this circuit it becomes itself capital – specifically constant capital (Marx 2011, 217). The question to face now is what kind of architecture has capital engendered? What factors have shaped it and how?

The Abstraction of Space

Lefebvre’s historical inquiry on space and its production led him to the conclusion that the first signs of an ‘actually existing’ abstract space were to be located in the mediaeval Europe of the twelfth century, prior to the advent of capitalism, hence one of its material preconditions (Lefebvre 1991, 263). Yet, *abstract space* is defined as the space produced by capitalism under the command of the bourgeoisie; it functioned as precondition only in its embryonic form, gradually coming to dominate all previous spatial formations along with the ascendancy of the economic sphere (Lefebvre 1991, 275). Under this periodisation, what precedes the abstraction of space is the *absolute space* of antiquity, which was politico-religious and seen as divine, symbolic and transcendental (Lefebvre 1991, 236). Despite authors like Shields (1999, 170-73) have criticised – from a post-structural point of view – this ‘spatial history’ as being essentialist, totalising, anti-dialectical (causal), or betraying its own premises; Lefebvre’s fourth implication from his general hypothesis on space⁵ should be recalled (1991, 46). In it he explicitly deals with the premises of a history of the production of space: a non-causal, but dialectical approach to the transition of one mode of production of space to another, thus actualising Marx’s classical theory to include space as a productive force in its own right.⁶

The emergence of abstract space was correlative with the process of abstraction of human labour – which I have discussed from a theoretical standpoint – or that period called since Smith and Marx, *previous* (Smith 2007, 175) or *primitive accumulation* (Marx 2011, 786). In an attempt to fill the gaps in Marx's theory, Lefebvre (1991, 262) starts by analysing the long transition from the absolute and symbolic space of Greek and Roman societies to the *relative or historical space* of accumulation. Simply put, primitive accumulation is a process which is 'not the result of the capitalist mode of production, but its starting point' (2011, 784). This process corresponds to the historical transition from feudalism to capitalism, which meant the dispossession of direct producers (mainly peasants) from their means of production and subsistence (mainly land) and their subsequent transformation into wage labourers (Marx 2011, 786). Lefebvre characterises this period as starting from the dominance of what he calls the 'urban effect' during the fifteenth and sixteenth centuries: 'The historical mediation between medieval (or feudal) space and the capitalist space which was to result from accumulation was located in urban space – the space of those 'urban systems' which established themselves during the transition' (1991, 268). It should be noted from the outset that, for Lefebvre, 'nothing ever disappears' in space (1991, 212), hence different social spaces can coexist in one way or another, shifting their predominance according to the prevailing mode of production and specific social and historical conditions. As the medieval town developed through commerce, which in turn gave way to exchange networks culminating in vast urban systems across Europe and the Spanish-American colonies, the town achieved its highest expression and unity under the Renaissance (Lefebvre 1991, 271). At the same time, new representations of space such as perspectives and bird-eye views were retroactively used for political and strategic aims (Lefebvre 1991, 269) – e.g. Jacopo de' Barbari's map of Venice (1500) had a clear political impact directly related to the form of its representation (Liernur and Tafuri 1983, 9). Paradoxically, this process coincided with the destruction of the town by the proliferation of urban networks and wars. Later on, in the eighteenth century, the rise of the modern state would seal its fate by the establishment of a universal urban space based on general exchangeability (Lefebvre 1991, 269).

The ascendancy of the economic sphere – its positioning as the unifying or dominant ideology in secular society – was indeed the first historical juncture in which the economic structure of society coincided with its ideological counterpart (Jameson 2011, 15-16). As Jameson points out apropos of Althusser's reading of Marx's critique of Bastiat (2011, 93-94n2), this means that 'only in capitalism are these two things identical, and the economic determinant is also the secular dominant' (2011, 16). Following Marx, Lefebvre (1991, 276-77) criticises mainstream economists and historians for their apologetic belief that this transition could have been achieved in a peaceful manner, somehow opposing pacific development and progress (accumulation) to violent destruction (war). The fact is that primitive accumulation was founded on the destruction of previous forms of production. Indeed, from the sixteenth century onwards, war – waged over new territories of potential investments – assumed an economic role *tout court*, for it allowed an astonishing development of the productive forces, hence boosting accumulation through colonialism

and, later on, imperialism (Lefebvre 1991, 275-76). For Lefebvre, there was a correlation between the violence required to 'adjust' to the spatio-temporal requirements of commodity circulation and increasing urban development: 'Space and time were urbanized – in other words, the time and space of commodities and merchants gained the ascendancy (...)' (1991, 277). Moreover, this progressive urban expansion presupposed the use of violent means:

Industry would pitch its tent in a space in which the communitarian traditions of the countryside had been swept away and urban institutions brought to ruin by wars (though the links between towns, the 'urban system' had not disappeared). This was the space, piled high with the rich spoils of years of rapine and pillage, which was to become the industrial space of the modern state. (Lefebvre 1991, 275)

Parallel and integral to the role of violence in the accumulation process was the creation and institution of the state. In Lefebvre's account, the space of accumulation, 'established and constituted by violence' (1991, 280), was the cradle of the state. The modern nation-state itself is viewed here as a framework which ensures that the interests of the ruling class (bourgeoisie) prevail in society. Lefebvre (1991, 282) warns us about liberal ('common good') and authoritarian ('general will') theories of the state which fail to conceive it as a *spatial framework* that proceeds according to the so called principle of *sovereignty* and *unification* but which, at the same time, resorts to the violent *fragmentation* of space in order to control it (1991, 321). In Lefebvre's words: 'every state is born of violence, and that state power endures only by virtue of violence directed towards a space (...) the state framework, and the state as framework, cannot be conceived of without reference to the instrumental space that they make use of' (1991, 280-81).

In what precise sense then can we speak of abstract space or the abstraction of space? What are its characteristic features? The sense given here to *abstraction* should be carefully scrutinised. I have pointed out the different meanings which Marx attributed to this concept depending on its use (see, Chapter 3, 52). The meaning that Lefebvre has in mind is analogous to that of *abstract labour* – i.e. an abstraction which exists as a social relation.

Abstract space can only be grasped *abstractly* by a thought that is prepared to *separate* logic from the dialectic, to *reduce* contradictions to false coherence (...) This same space corresponds to the broadening of that (social) practice which gives rise to ever vaster and denser networks on the surface of the earth, as also above and below it. It further corresponds, however, to *abstract labour* (...) and hence the general form of the commodity; abstract labour is in no way a mental abstraction, nor is it a scientific abstraction in the epistemological sense (...); rather, it has a *social* existence, just as exchange value and the value form themselves have. (Lefebvre 1991, 307)

As seen earlier (Chapter 3, 53), Marx was concerned with the material conditions that made abstractions such as value, money, the commodity, and capital, function as social and concrete realities, something 'true in practice' (Marx 1973, 33). A *real or concrete*

abstraction is something very different from 'conceptual' abstraction; hence Marx aimed at demonstrating that concrete abstractions were the real base upon which mental abstractions (or ideologies) were constructed – e.g. the concept of labour as such in classical political economy. As Sohn-Rethel (1978, 19) asserts, speaking of an abstraction which is concrete would seem a logic contradiction, and so the only way to grasp it is by using both dialectics and logic, as Stanek (2011, 134) suggests about Lefebvre's method.⁷

If the abstraction of labour is characterised by the reduction of concrete types of labour to the undifferentiated realm of labour in general, the abstraction of space is identified by the reduction of concrete places and locations to the homogenous realm of 'universal space' – i.e. the Cartesian *res extensa* (Lefebvre 1991, 296-97). However, Lefebvre questions this apparent homogeneity of abstract space: 'Abstract space is not homogeneous; it simply has homogeneity as its goal, its orientation, its 'lens' (...) But in itself it is multiform' (1991, 287). Indeed, central to Lefebvre's aims was to lay out a 'theory of contradictory space' – a space which simultaneously engenders and is produced by the contradictions of capitalism. As Stanek (2011, 145) observes, for Lefebvre space is at once concrete and abstract, heterogeneous and homogenous; it is only within capitalism that the latter aspect takes hold over the former:

The paradigmatic (...) opposition between exchange and use, between global networks and the determinate locations of production and consumption, is transformed here into a dialectical contradiction, and in the process it becomes spatial. Space thus understood is both *abstract* and *concrete* in character: abstract inasmuch as it has no existence save by virtue of the exchangeability of all its component parts, and concrete inasmuch as it is socially real and as such localized. This is a space, therefore, that is *homogeneous yet at the same time broken up into fragments*. (Lefebvre 1991, 341-42)

For Lefebvre (1991, 306) the fact that modern space presents itself as homogenous, objective, neutral, technical or 'scientific', is itself a sign that its contradictions are being 'covered up' in an ideological manner – just as Marx saw the way in which the market depicts itself not only as deceptive but as performing the fetish function of masking its own contradictions, notably that between capital and labour. Thus, abstract space is a *false-yet-real* space, a fetishised space which sees itself as a formal and autonomous thing independent of any social contents – as an empty, purely visual and empirical object, transparent and legible, coherent and unified (Lefebvre 1991, 355).

Since space is at once a *product* of social relations and the *producer* of them, a double set of features can be distinguished: as product it is quantitative and qualitative, abstract and concrete, homogenous and fragmented. As producer (or instrument) abstract space has two main functions: it is an *exchange medium* (for the market) and a *political instrument* (for the state) – it is 'the space where strategies are put into effect' (Lefebvre 1991, 307).

Vital to Lefebvre's concerns was what he called 'abstraction in action' to refer to the production of space under capitalism; in particular the role urban planning has played as

ideology and practice during the transition from 'residence' to 'housing' (Lefebvre 1991, 314). As Stanek remarks:

Abstract space is the measurable space "occupied by separate objects"; it is the isomorphic space without any privileged orientation or direction (such as front or back, high or low); any linkage among objects in this space is neither impossible nor necessary. This is the space of the postwar urbanism that Lefebvre interpreted as a system relating isolated functions according to the differences among them, which contrasts with the concrete, "practical" space of everyday activities. (Stanek 2011, 145)

Accordingly, the process of abstraction of space – its transformation to serve the purpose, first of the primitive accumulation of capital, then of its expansion towards a world market through ever-increasing urbanisation – sets the conditions for the gradual process of abstraction of architecture, first in the building industry in relation to changes in production, and later in the theories of modern avant-garde artists and architects which reflected this reality and whose rational methods greatly influenced the production of space as a whole.

The Abstraction of Architecture and its Limits under Capitalism

The central contradiction of abstract space is that it is (or it aspires to be) simultaneously *homogeneous* and *fragmented* – universal, yet ruthlessly subdivided. It should be bear in mind that these are not formal properties intrinsic to space, but rather the outcome of a spatial practice – a practice which produces space by literally homogenising and fragmenting it (Lefebvre 1972, 42). Lefebvre drew some of these conclusions from his early analyses of the French urbanism of the *grands ensembles* (housing states) and the *villes nouvelles* (new towns) – such as Mourenx in the south of France – during the 1950s and 1960s. Such analyses critiqued the abstraction of state-led urban planning, and posed the problem of 'the contradiction between the abstract rationality of urbanism and the concrete rationality of the practices of dwelling' (Stanek 2011, 145), or between the abstract and quantitative logic of capitalist space versus the everyday space of people. In Lefebvre's words:

In Mourenx, modernity opens its pages to me (...) I read the fears modernity can arouse: the abstraction which rides roughshod over everyday life – the debilitating analysis which divides, cuts up, separates – the illusory synthesis which has lost all ability to reconstruct anything active – the fossilized structures, powerless to produce or reproduce anything living, but still capable of suppressing it (...) On the one hand, the tendency towards totalization and 'integration' (...) prevents us from seeing how disjointed everything is becoming. On the other hand, the fragmentation of everyday life (...) prevents us from realizing that unification is being imposed from above, and that all original differences are being eliminated. The truth is to be found in the movement of totalization and fragmentation taken as a whole. This is the truth we read in that obscure and legible text: the new town. (Lefebvre 2011, 119-20-21)

The parallel which Lefebvre established between abstract labour and abstract space led him to search the historical moment in which the modern concept of space begun to be formulated after having emerged out of the new relations of production imposed by capitalism (Stanek 2011, 146). The moment in question was the rise of the Bauhaus in the aftermath of the German Revolution and the establishment of the Weimar Republic in the early 1920s. The avant-garde artists and architects from the Bauhaus formulated a universal concept of space and established a direct relation between industry and architectural and urban development (Lefebvre 1991, 124). Despite space has been the object of philosophy and science since ancient times, its awareness as an aesthetic and practical problem dates only from the second half of the nineteenth century. As Morales (1969, 140) asserts, it was Hegel who first addressed architecture as the art of enclosing space (Hegel 1975, 633). The influence experimental psychology – Stumpf and the *gestaltpsychologie*, for example – had on art historians such as Semper, Schmarsow (Vischer, et al. 1994, 281-97), Riegl, Fiedler, and Wölfflin (Vischer, et al. 1994, 149-87) was reflected in their respective theories which emphasised a formalist and visualist approach to art and architecture, mainly influenced by Kantianism (Montaner 2002, 24-30; Stanek 2011, 147).⁸ According to Stanek (2011, 147), Lefebvre's critique of the newly introduced concept of 'architectonic space' (1991, 104, 360) as the 'essence' (Schmarsow) of architecture or its specific feature (Zevi 1981), was aimed to showing that the concept of space adopted by psychologists, art historians, and later painters and architects, was fetishistic (ideological) from the outset. Indeed, it was only the distorted manifestation in theory of real contradictions in the (social) production of space and the city. Hence, by defining space as a neutral pre-existing void waiting to be filled by social practices (see (Zevi 1981; Giedion 1980), architects contributed to keep obscured the actual process of production of architecture under capitalism.⁹

In order to discern the concrete outcome of 'realised' abstract space from its various representations by modernist architects, Lefebvre (1991, 285-87) proposed three main 'formants' of space: *geometric*, *visual*, and *phallic*. *Geometrical*, as long as it entails the reduction to a homogenous Euclidean space used strategically and politically. *Visual*, as it relies on the power of signs, language, images and spectacle to repress and reduce all sensorial and social reality exclusively to visual perception. And finally – in psychoanalytic fashion –, *phallic*, since its verticality symbolises the brutality of the state, its police and army but also its projects and plans which must subordinate to the dictates of the capitalist class. Lefebvre saw all of these features – certainly at work in modernist architecture – inextricably linked to the mechanisms of capital accumulation. In this respect, his critique was similar to Bloch's (Heynen 1999, 126-27; Bloch, et al. 1980, 17-27), except Lefebvre was ruthless not only towards the modern movement, but also the early manifestations of its allegedly 'alternative' – i.e. postmodernist architecture, in particular Venturi (Lefebvre 1991, 145, 364n4). Lefebvre's ideas almost undoubtedly were influenced by Adorno and Horkheimer's notion of *instrumental reason* (Adorno and Horkheimer 1989; Horkheimer 1973). This can be seen in the notion that reason and knowledge were 'hijacked' by the bourgeoisie and reduced into a mere instrument of power and domination. Thus, for Lefebvre the bourgeoisie 'adopted analytical reasoning and made it its own specific

mentality' (Lefebvre 2011, 120), while the emergence of bourgeois society 'was characterized by a colossal analysis – indispensable, effective, terrifying – which has been *turned into objective reality and projected on to the new towns*' (Lefebvre 2011, 120). It was on this dialectic between *analysis* – for efficiency (profit) purposes – and *project* that Lefebvre locates the workings of the capitalist production of modern space/architecture. According to Stanek:

[Lefebvre] developed the argument about the instrumentalization of the modern movement in the capitalist reorganization of economy and society. He argued that new planning procedures and new systems of representing space introduced by the architectural avant-gardes were essential for the development of capitalism. This was not different in state socialism, which shared with postwar capitalism the logics of bureaucracy and productivity. (Stanek 2011, 148)

At a strategic level, abstract space seems to be deployed simultaneously from above (the state) and from below (production and the market). Both of these forces mobilise space in a contradictory manner, fragmenting it for purposes of exchange and management, and then forcibly uniting the pieces back together. According to Lefebvre (1991, 308) what this contradiction reveals is that this space is a *homogenising* tool rather than *homogeneous* in itself, it never achieves the homogeneity and totalisation it preaches, just as the ultimate abstraction, capital, can never completely dominate over labour, since it only exists by it in first place. What about the concrete level of architectural experience then? How does this space get reproduced in architectural practice? What are the effects of abstract space on the ground?

Once abstract space made its way into architectural theory and was raised as its main battle cry, modern architects developed new ways of working and representing their work – e.g. axonometric views, functional and solar diagrams, and so on. Yet, this new 'code' derived from a space conceived of as a mental category – i.e. as seen by philosophy, logic, and the empirical sciences. Hence, architectural practice confronted social contradictions by reducing and concealing them under the banner of positivism (Lefebvre 1991, 308). The notion of a supposedly specific 'architectonic space' served to further abstract it from the actual social relations who produced it; consequently, 'the architect' appeared as the primary 'producer of space'. Thus, Lefebvre argues that 'within the spatial practice of modern society, the architect ensconces himself in his own space. He has a representation of this space, one which is bound to graphic elements (...) This conceived space is thought by those who make use of it to be true, despite the fact – or perhaps because of the fact – that it is geometrical (...)' (Lefebvre 1991, 361). Hence, the abstraction implied in architectural plans and projections is not acknowledged as such; instead it is taken to be in strict correspondence with 'empirical reality' – paradoxically negating its own abstract character as a representation of space. As Lefebvre states:

The architect cannot, as he easily tends to believe, localize his thought and his perceptions on the drawing board, visualize things (needs, functions, objects) by projecting them. He confuses *projection* and *project* in a confused ideality which he believes to be 'real' (...) The

sheet at hand, before the eyes of the draughtsman, is as blank as it is flat: He believes it to be neutral. He believes that this neutral space which passively receives the marks of his pencil corresponds to the neutral space outside, which receives things, point by point, place by place. As for the 'plan', it does not remain innocently on paper. On the ground, the bulldozer realises 'plans'. (Lefebvre 2000, 191)

The actual space which results from this process implies reductions at many levels. The reduction of form to figure (and from volume to surface) for instance, is a clear sign of the violence such procedures impose onto social space – which is full of local differences and particularities, and often indistinguishable from the practices which takes place on it. This is a mental space which may seem geometrically consistent but which never managed to reach the (perceptual and social) reality of bodies, hence an 'incomplete' and idealised space. Highly abstract in that it is thought more in accordance with an 'idea' or 'representation' than reality itself, this is a space 'literally flattened out, confined to a surface, to a single plane' (Lefebvre 1991, 313). Consequently, all architectural elements are systematically reduced to this mental scheme, 'the wall was reduced to a surface and this in turn to a transparent membrane (...) Matter was now to be no more than an envelope for space' (Lefebvre 1991, 303). The rhetorical terms in which this was presented as the 'overcoming of the division between inside and outside', was used to obscure the reductive procedures at work. Paradoxically, this 'new transparency' concealed its real purpose: to cover up the contradictions in the production of space and make them appear and clear and legible; hence, this new tectonic was transparent only in appearance. A self-referential formalism began to emerge along these lines in the years of the avant-gardes – for example in Dutch neoplasticism and certain strands of soviet constructivism – which further fetishised the notion of space as primarily the result of abstract formal experimentation.

What clearly comes out of these critiques is the set up of an ideological 'vicious circle': first, the architect misrepresents reality by reducing it into an empty abstraction which passes off as concrete; then, he 'projects' back to that reality a new one based on this initial distortion (Elden 2004, 189). The result is a further deceptive reality which encourages further theoretical delusions. Yet, the first misrepresentation is nothing but the 'theorising' of an already fetishised concrete reality – that of abstract space itself – which evidently predates and exceeds the 'workings' of the architectural discipline. Indeed, the illusion of the architect as master-producer of a pristine space is exposed as soon as architecture is understood as the outcome of social relations:

The section of space assigned to the architect (...) has nothing innocent about it: it answers to particular tactics and strategies; it is, quite simply, the space of the dominant mode of production, and hence the space of capitalism, governed by the bourgeoisie. It consists of 'lots' and is organized in a repressive manner as a function of the important features of the locality. (Lefebvre 1991, 360-61)

Thus, the idealism and utopianism of modernist architecture had its reverse in the actual procedures of the production of space. I will review the political implications this problem

raises in the next chapter. For now the analysis must conclude with a brief account of the actual categories at play in the capitalist production of space/architecture. These are the concepts of fixed capital, landed property and rent, which belong to the sphere of classical political economy, yet, examined from the standpoint of the theory of social space, they acquire renewed significance. The characterisation of space/architecture in the first section as *constant capital* is not enough to understand all the developments examined in modernist architectural practice. Once understood how the circuit of capital unfolds in space, the complex totality of the production of surplus-value gradually starts to emerge.

In accordance with his theory of the production of space as representing a new (global) stage in the development of capitalism, Lefebvre thought investment in space (real estate sector) has been increasingly gaining the upper hand to investment in production. This he called the *secondary circuit of capital*,¹⁰ 'a circuit that runs parallel to that of industrial production, which serves the nondurable assets market, or at least those that are less durable than buildings' (Lefebvre 2003, 159). This shift takes place, among other things, to displace stagnation in the primary circuit:

'Real property' (along with 'construction') is no longer a secondary form of circulation, no longer the auxiliary and backward branch of industrial and financial capitalism that it once was (...) Capitalism has taken possession of the land, and *mobilized* it to the point where this sector is fast becoming *central*. Why? Because it is a new sector – and hence less beset by the obstacles, surfeits, and miscellaneous problems that slow down old industries. Capital has thus rushed into the production of space in preference to the classical forms of production – in preference to the production of the means of production (machinery) and that of consumer goods. This process accelerates whenever 'classical' sectors show the slightest sign of flagging. (Lefebvre 1991, 335)

Following these and Marx's insights, Harvey (1985, 6; 2006, 232-35) introduced the idea of a *built environment for production* and one *for consumption*. The former is composed by *fixed capital* which is either a direct instrument in the production process (e.g. producer durables, machinery) or the physical infrastructure (precondition) for this to take place – which Harvey (2006, 226) calls 'fixed capital of an independent kind' (e.g. factories, offices). The *built environment for consumption* consists in a *consumption fund*, which is composed by commodities which are an aid to direct consumption; they can be either consumer durables (e.g. appliances, furniture, cars) or the physical framework in which consumption takes place (e.g. houses, buildings, squares, etc.). Although objections have been made to Harvey's reduction of social space to the limited notion of 'built environment' (see Gottdiener 1985, 185-86), this categorisation nevertheless allows a clearer understanding of architecture's role in the production of space. In this, it would seem unequivocal that architecture can be either a form of fixed capital (independent kind) or of the consumption fund, yet the definition of the former requires further elucidation.

Marx introduces the categories of *fixed* and *circulating capital* in order to understand the problems associated to the circulation of capital within the production process, whereas the concepts of constant and variable capital were developed to examine the production of

surplus-value (Harvey 2006, 207-8). However, fixed and circulating capital are not as self-evident as their denomination might imply. *Fixed capital* corresponds to that part of constant capital (means of production) in which a portion of its value remains *fixed* in it after the production process instead of passing onto the product. *Circulating capital* is that part of capital which transfers all its value onto the product in the course of production (e.g. raw and auxiliary materials, labour-power, etc.). As Marx points out:

[Fixed capital] does not circulate in its use-form, but it is merely its value that circulates, and this takes place gradually, piecemeal, in proportion as it passes from it to the product, which circulates as a commodity. During the entire period of its functioning, a part of its value always remains fixed in it, independently of the commodities which it helps to produce. It is this peculiarity which gives to this portion of constant capital the form of *fixed capital*. All the other material parts of capital advanced in the process of production form by way of contrast the *circulating, or fluid, capital*. (Marx 1956, 93)

Marx was emphatic in showing that both these categories were relative to the specific function performed by factors of production, and not properties of themselves; they do not coincide with the immobile or mobile character of commodities: 'A house for instance when performing the function of a workshop, is a fixed component part of productive capital; when serving as a dwelling it is in no wise a form of capital' (Marx 1956, 121). This brings us back to the problem of abstract space. If architecture can be part of the circuits of capital, either directly (fixed capital) or indirectly (consumption fund), does its abstraction process occur in the same manner? On first inspection, no. Only architecture which is fixed capital is restrained by the spatio-temporal requirements of production; yet, architecture often can be simultaneously means of production and consumption: 'It is not necessarily the case that fixed capital is capital which in all its aspects serves not for individual consumption, but only for production. A house can serve for production as well as for consumption; likewise all vehicles, a ship and a wagon, for pleasure outings as well as a means of transport; a street as a means of communication for production proper, as well as for taking walks etc.' (Marx 1973, 368). This dual aspect was dramatically emphasised by modernist architecture. A concrete example – which also confirms my hypothesis of commodification at the level of *architectural objects* (see Chapter 3, 59-60) – is the connection between scientific management techniques (Taylorism) and architecture made by Christine Frederick (1923). A functionalism *avant la lettre*, she proposed an 'efficient grouping' for a kitchen plan in which all equipments were organised according to a sequential order of the cooking process to save time, echoing the model of the assembly line popularised by Henry Ford. Under the supervision of Ernst May, Austrian architect Margarete Schütte-Lihotzky applied this model to various social housing projects in Frankfurt. Rather unsurprisingly, this type of studies became common at the Bauhaus. Scientific management implied the rationalisation and disciplining of labour. Along with the breaking down of this process into simple and repetitive tasks, architecture was accordingly fragmented into its different component functions which mirrored the division of labour. The subordination of the entirety of space/architecture to the requirements of capitalism demanded also the exchangeability of all its component parts; hence, architecture began to be progressively standardised (Lefebvre 1991, 337).

As the abstract logic of capital leaves the sphere of production and starts to determine all the aspects of everyday spaces in the city (with the aid of modern architecture), a constant struggle develops 'between interests organized around social space, as the site of social use values and the deployment of communal relations in space, and around abstract space as the space of real estate development and government administration – the combined articulation between economic and political modes of domination' (Gottdiener 1985, 163). The centrality of space/architecture in this struggle calls for a brief examination of the concepts of *landed property* and *rent* which will be reviewed in the next chapter. As we shall see, this struggle is more complex than the simplified Marxist model of class struggle as derived from the contradiction between capital (bourgeoisie), labour (proletariat), and land (landowners). Accordingly, the question of the role of architects in it is crucial to understand the political dimension of architecture.

6

The Formal: Architecture as Political Mediation

Politics or the Contingent Dimension

Can a work of architecture be political? And if so, in what sense? Is this political dimension intrinsic to the conception of the design or depends on external situations? These sort of questions seem to have recently returned to architectural discourse (see Aureli, 2011; Findley 2005; Hale 2000, 171ff; Leach 1999; King 1996), especially after the end of the cold-war period, where the political realm has been almost entirely reduced to the liberal 'consensual-rational agreement' and the 'end of ideologies' post-political and pragmatic motto (Mouffe 2005, 1ff). Is political meaning or use simply projected into an otherwise neutral architectural work? Or the political dimension springs directly from the conception of a design? Can a work of architecture be internally critical of the *status quo*? Or is it doomed to be the passive bearer of shifting political appropriations throughout its lifespan?

To give a possible answer *the political* must be distinguished from *politics* – and also in what ways they relate to architecture. This distinction has been made, for example, by Jameson (1997, 243), Lefebvre (2003, 61), and more recently Mouffe (2005, 8-34). As Jameson puts it:

(...) at least two different meanings are deployed when we use the word *politics*. One is politics as the specialized, local thing, the empirical activity (...) The other is politics in the global sense, of the founding and transformation, the conservation and revolutionizing, of society as a whole, of the collective, of what organizes human relationships generally and enables or sponsors, or limits and maims, human possibilities. This larger acceptation of the word *politics* often seems non-empirical, on the grounds that one cannot see vast entities like society itself; perhaps we should characterize this distinction as that between the particular and the general or universal. (Jameson 1997, 243)

The political, therefore, would be a *formal* – in the sense of structural or universal – concept, whereas politics is a *contingent* or particular notion. The former is a general term designating the political nature of the 'human animal' – as described by Aristotle in his *Politics* (Aristotle 2005, 18). Politics refers to the particular practices and institutions aiming at managing the conflictual character of public affairs (Mouffe 2005, 8-9). As Jameson (1997, 243) and Elden (2004, 241) notice, these dimensions cannot be separated from one another since one is constantly 'built' upon the other: the concrete practice of politics is always an embodiment of a global political theory (strategy), whereas this theoretical construct springs from the concrete practice of politics in the first place – i.e. it's materially

and historically grounded. Lefebvre relates these spheres to the dialectics of theory and practice:

From the outset, we have to make a distinction (which is common, by the way) between *politics* [la politique] (ideology, speeches and gossip, wheeling and dealing) and *the political* [le politique], the sphere of decision-making, including the supreme decision: war. Now the lack of a theory of *the political* means that the activity and decisions of the politician are doomed to be 'ad hoc'. It means a lack of strategy. Conversely, if there is strategy, there is theory, often implicit, unexpressed, latent. (Lefebvre 2003, 61)

Several contradictions arise when by putting this distinction in relation to space/architecture. First, the contradiction between theory and practice assumes the form of the distinction between *design* and *work* – or between drawing and building. In non-English speaking countries a further distinction is often made between *project* and *design*. As Aureli (2011, xiii) rightly asserts, the *project* designates an abstract strategy, a 'model of reality' (Borchers 1968, 50), a pre-figuration or representation of *the possible* corresponding to various levels of abstraction. Although the project develops in a mental space – and in that sense it has relative independence from empirical reality – it is nonetheless grounded in a material practice which takes place within a historical time and space. On the contrary, *design* corresponds to something bound to specific requirements within a fixed time and location and it varies according to these concrete conditions. According to Borchers (1968, 50) this distinction is analogous to that between *object* and *thing* (see Chapter 2), namely, between abstract and concrete.

Apart from acknowledging the dialectical relationship between politics and the political, Jameson (1997, 242-43) goes on to argue they relate to each other in an allegorical way – i.e. concrete political practices are an allegory of a universal political project; conversely, this general project is an allegory of practical politics. This literary analogy serves also to explain why the proper political dimension of architecture cannot lie in its 'political meaning' on one hand, nor in its 'political use' on the other. By 'political dimension' I refer to what is political in architecture *itself* – specifically, in a work of architecture. Thus, any 'political associations' we could make cannot count as its intrinsic political dimension, precisely because they depend on external conditions. If I take a building like UNCTAD III for example (see Chapter 7), it can't be said that the fact it was built during a pre-revolutionary period or that it was done by the government with an explicitly political aim, constitutes its political dimension as a building. As Jameson argues, buildings can embody a particular political symbolism, but this is always a fleeting one which depends on a particular historical conjuncture:

Symbolic meaning is as volatile as the arbitrariness of the sign: in other words, as in dreams, the spatial unconscious can associate anything with anything else – a dead body meaning jubilatory euphoria, a loved one's photograph triggering violent xenophobia (...) In the same way, a sugar-candy postmodern decoration can for a moment stand as a heroic repudiation of the dominant, old, repressive modern glass-box international style, only in another blink of an eye to become 'indissolubly' (at least for this moment and this particular, equally ephemeral, present) associated with the high – and low-life – ultraconsumerist speculation of

a Reagan 1980s destined to join the 1920s in the history books for sheer upper-class indulgence. (Jameson 1997, 244-45)

Following the UNCTAD III example, a work of architecture that presents itself as explicitly 'political' is no more political than one that does not. In other words, architecture does not become political on account of being a government building, or a place where 'politics' happens or is associated with. From the standpoint of the political, an ordinary house is as much a political work than an institutional building – i.e. it can't be reduced to a typological problem. If politics refers to concrete political practices – whether institutional or not – and if, in this sense, one can only make political use of or attribute a certain political ideology to space, then architecture acts merely as a passive medium upon which politics takes place. If these two levels of politics (practice and ideology) were to be the locus of the political in a work of architecture we would have no remedy but to accept the neutrality of it.

Does the realm of *design* correspond to politics or the political? Can an architectural design be political in itself? According to the distinction between the formal (the political) and the contingent (politics), *design* stands between the abstract dimension of the *project* and the concrete realm of the *work*. In that sense, it would be part of both political realms. Nonetheless, this analysis expects to reveal the 'empirical illusion' of architectural design; and show that, although design is the embodiment of a general architectural strategy, it cannot constitute by itself the political in architecture. As both Lefebvre (1991, 54) and Allen (1999, 102) acknowledge, there is no easy correspondence between architecture and politics, there is no intrinsically fascist or socialist architecture, no liberating or repressive architecture in itself. Architecture can be neither political in itself, nor can it be it on account of its shifting political uses. I shall demonstrate that thinking architecture in terms of the 'projection' of an ideology into space is not only misleading but contributes to a limited and one-sided understanding of the political dimension of architecture, thereby reinforcing its established role under capitalism reviewed in the previous chapter.

The Political or the Formal Dimension

If the political appropriation of a work of architecture cannot constitute its political dimension, where does it reside? Before I move into architecture, a sufficient understanding of recent debates on the concept of the political is needed. In the following we will contrast an abstract and ontological definition of *the political* as a radical separation from 'an other' (see Schmitt 2007; Mouffe 2005), with an understanding of it as the manifestation of internal contradictions within the mode of production of a given society, in particular, capitalist society (see Marx and Engels 1968; Jameson 1997; Lefebvre 2003, 61).

Post-Marxist political theorist Chantal Mouffe, following Carl Schmitt's critique of liberalism, defines *the political* as a fundamental antagonism that is constitutive of society.¹ Schmitt himself proposed that 'the specific political distinction to which political actions and motives can be reduced is that between friend and enemy' (Schmitt 2007, 26). Schmitt argues that

this distinction is not to be taken as metaphorical but as existential, analogous to elemental categories such as good and evil in ethics, beautiful and ugly in aesthetics, or profitable and unprofitable in economics. For Schmitt 'the distinction of friend and enemy denotes the utmost degree of intensity of a union or separation, of an association or dissociation' (Schmitt 2007, 26). Thus, only by defining our enemy, we can assert our autonomy and position in relation to the rest of society. However, Schmitt and Mouffe's understanding of the political remains highly abstract if we put it in relation to space/architecture; it focuses exclusively on the problem of political identity formation, while bypassing questions related to production and space.

According to Marxian historical materialism, the political is not defined in any explicit ontological sense. The political is a realm that constitutes part of the superstructure of society and it is dialectically determined by its economic base. How does this political sphere come into being? In Marx, an explicitly spatial component is acknowledged from the outset as one of the first premises of his materialist method: 'the first fact to be established is the *physical organisation* of (...) individuals and their consequent relation to the rest of nature' (Marx and Engels 1968, 7). It could be argued that a certain 'proto-politics' arises when we ask how individuals organise themselves in order to produce their means of subsistence and live together. Hence, the political is not a totally autonomous realm in which antagonisms among social groups arise solely from their identity conflicts, but they rather emerge out of the organisation of the mode of production of material life in the first place (Marx 1859, 4).

Another similar non-ontological conception of the political is found in Arendt which, as Aureli (2011, 27) notices, it is founded on the nature of the social relations among fundamentally diverse human beings (Arendt 2005, 93). Aureli follows Arendt's claim about the non-existence of a political substance in itself. For Arendt, there is nothing political in a human being taken in isolation, but it rather lies in the relationships established *between* men (Arendt 2005, 95). The political arises precisely in the conflict about which is the proper way to organise the relationships among human beings. Arendt makes a further point which has spatial implications:

(...) wherever human beings come together – be it in private or socially, be it in public or politically – a space is generated that simultaneously gathers them into it and separates them from one another. Every such space has its own structure that changes over time (...) Wherever people come together, the world thrusts itself between them, and it is in this in-between space that all human affairs are conducted. (Arendt 2005, 106)

Of course, space here does not refer to its physical expression, but rather to its social dimension. What is important to notice is Arendt's emphasis – just as Marx's – in the world as mediator, as an active medium which changes the social relations which produce it. I argue this is precisely the terrain where the political dimension of architecture lies. In this respect, Aureli (2011, 30) relates the political to the formal, this latter understood not as external form (*morphè*) but as internal properties (*eidos*), again echoing the previous distinction between thing and object, and design and project. In Chapter 1, I examined Van

der Laan's understanding of architecture as an extension of the human body based on a primordial break with natural space, but which at the same time mediates our relationship to it; for him, architecture is 'an objective projection of the subjective relation between the human body and the natural environment' (Van der Laan 1960, 7). Therefore, if the political in architecture is as much a break *from* as it is a relationship *to* existing space, it is fundamentally *mediation* between humans, and between humans and their surrounding world; it structures the way in which we relate to each other but also to our natural and human environments (second nature). Architecture's political task consists then in the permanent rearrangement of this mediation. However, this definition complicates as soon as it is revealed that the actual *mediator* are the social practices which produce architecture in the first place, and which are, without a doubt, political.

In an attempt to define the political in architecture and art, Leach (1999, 112-13) confronts Marcuse and Adorno's views on political art with Jameson and Foucault's ideas on the matter. According to Leach, both Marcuse and Adorno support the autonomy of aesthetic form as an internal critique of existing social relations, thus for them a revolutionary art is possible and necessary. However, Leach's counterargument based on his reading of Jameson is rather one-sided. He bases himself in Jameson's following statement:

If an architecture wished to dissent from the status quo, how would it go about doing this? I have come to think that no work of art or culture can set out to be political once and for all, no matter how ostentatiously it labels itself as such, for there can never be any guarantee it will be used the way it demands. A great political art (Brecht) can be taken as a pure and apolitical art; art that seems to want to be merely aesthetic and decorative can be rewritten as political with energetic interpretation. The political rewriting or appropriation then, the political use, must also be allegorical; you have to know that this is what it is supposed to be or mean – in itself it is inert. (Jameson 1997, 245)

Here, it would seem Jameson advocates the neutral nature of architectural form, while he is only dispelling the shifting nature of its *politics* (political use/interpretation). Surely Leach (1999, 119) is right in pointing out that a work of architecture – or art – cannot be the immediate embodiment of a political ideology. Yet, he is wrong in presuming architecture as a mere passive container of ever changing social and political uses. In discussing Foucault, he insists on this thesis, a bit recognising the possibility that a work of architecture might 'influence' social behaviour. Notwithstanding, he concludes that in Bentham's panopticon 'it is not the form of the panopticon which controls the behaviour of the inmates. Rather, it is the politics of use (...) which is ultimately determinant of behaviour, and the architecture is merely supporting that politics of use through its efficient layout' (Leach 1999, 121). Contrasting the ambiguity of Leach's position, Lefebvre directly addresses the political nature of space, and thus, of architecture:

Space is not a scientific object removed [détourné] from ideology or politics; it has always been political and strategic (...) Space has been fashioned and molded from historical and natural elements, but in a political way. Space is political and ideological. It is a product literally populated with ideologies. There is an ideology of space. Why? Because space, which seems homogeneous (...) is a social product. (Lefebvre 2009, 170-71)

This is a clear statement attacking a purely geometrical conception of space on account of its historical and social origin – which is ultimately its political origin. Yet, it should be kept in mind that the political can take place in architecture at many different levels – at least in discourse, project, design, and work. As I have stated, I'm concerned primarily with the built work of architecture and its production process, which means that the critical issue lies in the material structure of architecture and its action over human activity and perception – in short, over social relations.

The question of a political or revolutionary architecture can also be extremely misleading in the sense that it can lead architects to believe they can change something solely through their architecture. Witness the case of Le Corbusier's politically ambiguous *Architecture or Revolution* (1986, 267-89). His idea is that architecture can act as a kind of 'antidote' to social revolution. He acknowledges a wide 'social unrest', symptom of a contradiction between forces of production – 'industry' in his words – and the built environment, which he viewed as outdated in relation to them. So he claims that 'it is a question of building which is at the root of the social unrest to-day; architecture or revolution' (Corbusier 1986, 269). This argument implies a sort of advice, a warning (perhaps to politicians): if you want to avoid social revolution, perhaps you should address the 'needs' of the people right away. In other words, architecture should aim to protect the *status quo* rather than attempt to change it – as Scott (2002, 59) notices, this 'reformist illusion' was denounced as early as 1937 by Schapiro. Yet, at the same time Le Corbusier calls for a *revolution* in architecture, not a social or political one, but mainly *technological*. Oddly enough, Le Corbusier ends his argument criticising the rent system, and emphasising how the new 'architectural revolution' would require reforming property relations by which 'it would be possible to build; there would be an enthusiasm for building and we should avoid revolution' (Corbusier 1986, 269)

This is one the reasons why I argue that this question should be focused on architectural practice rather than architecture itself. In this way a simplistic 'instrumentalisation' of architecture as achieving social change by itself is avoided. Jameson addresses the problem precisely on these terms based on his interpretation of Tafuri which he summarises as follows:

The practicing architect, in this society and within the closure of capitalism as a system, cannot hope to devise a radically different, a revolutionary, or a "Utopian" architecture or space either (...) architectural or aesthetic production can never be immediately political; it takes place somewhere else. Architects can therefore be political, like other individuals, but their architecture today cannot be political (...) An architecture of the future will be concretely and practically possible only when the future has arrived, that is to say, after a total social revolution, a systemic transformation of this mode of production into something else. (Jameson 1998, 444)

For Tafuri it is hopeless to think architecture can transform reality by itself – i.e. by its own formal properties – but this depends on the total transformation of its social production. The absurdity then, is to believe that architects can succeed in proposing 'purely

architectural' alternatives to the *status quo*. He also claimed that architects shouldn't bother to write about architecture and that as 'architectural critics', they are able to intervene only in the discourses about architecture but not in the building of it, which is beyond their control (Ingersoll and Tafuri 1986). Hence, under this approach the term 'critical architecture' is highly problematical (Cunningham 2007, 33), and it is at odds with Aureli's approach, for whom 'it is possible to theorize a phenomenological and symbolic coincidence between political action and the making of the form of an object' (2011, 29-30). His idea – which I will discuss further ahead – is that architectural form (understood as strategy) can introduce blockages to urban growth directly into urban space, thereby 'hurting' the circulation and accumulation of capital (Aureli 2011, 37-41). Against this possibility, Tafuri's position explicitly rejects the autonomy of architectural form (whether as project or design) from the processes which determine its social production:

(...) just as there cannot exist a class political economy, but only a class criticism of political economy, so too there cannot be founded a class aesthetic, art, or architecture, but only a class criticism of the aesthetic, of art, of architecture, of the city itself (...) the search for an alternative within the structures that condition the very character of architectural design is indeed an obvious contradiction in terms (...) First among the intellectual illusions to be done away with is that which, by means of the image alone, tries to anticipate the conditions of an architecture 'for a liberated society'. Who proposes such a slogan avoids asking himself if (...) this objective is pursuable without a revolution of architectural language, method, and structure which goes far beyond simple subjective will or the simple updating of a syntax. (Tafuri 1999, 179-81)

According to this overt anti-utopian attack on any attempt to challenge architecture by the means of the discipline itself, modernism's failure to achieve its utopian aims was an internal one. Its fatal error was in attempting to merge the political and the aesthetic in 'transparent' fashion, and in so doing, to project a radical social and political transformation solely through architectural formal innovation (Jameson 1998, 455). Despite Tafuri's evident affinities with Althusser's structural Marxism, Foucault's structuralism, and the wider critiques of 'humanist' Marxism of the 1960s, I think several of his points are unavoidable to assess the possibility to take conscious political action through the practice of architecture. In the last section I will examine these in relation to the problem of utopia, ideology, and practice – this latter particularly from the limits imposed by private property.

Architecture as Political Practice

The fact architecture is political from the outset can't be denied, but necessarily requires asking *How? In what terms? At which level?* The statement is problematic for these reasons, and it needs to be clarified in the most synthetic way possible. Architecture is both the outcome *of*, and condition *for* social practices, social life, and social production. Social practice is itself political since it is a set of social relations which organises individuals and groups in order to produce their material life. Architecture is the precondition for this to happen, and at the same time, a direct result of it; hence, it controls

and limits the way in which these practices can be organised and function. It follows then, that the political action of architecture resides both in the way it is produced and the way it structures and articulates that same production whether directly or indirectly – as means of production or consumption. There is no doubt that all tools (space/architecture included) are political. Is political only their strategic use? No, they are themselves (political) products of the political and economical organisation of the dead and living labour necessary to produce them. Therefore, the architect's political action depends greatly on the material conditions which he finds already in place, and his response is limited – though not exhausted – by them, among which relations of production, property and class must be included.

This definition implies the refutation of three myths: first, that architecture can be political in itself isolated from the social practice which produces it; second, that it can be political only by way of its political use or interpretation; and third, that it is the projection or reflection of some political system or ideology – deriving into the tautology of a 'political architecture'. Tafuri deals with all three, specially the first one, yet he concludes that it is not possible for architecture to substantially challenge anything from within capitalism. However, he does acknowledge the possibility to change its methods and practices – a bit depending on changes elsewhere – and it is here where its critical position moves away from the apparent self-defeating immobility of the rest of his writings.

To clarify the fundamental role of practice in articulating the political action of architecture, the differences between the concepts of the political, ideology and utopia need to be addressed. I have already introduced the concept of ideology and its relation to architecture as taking place in the fetish character of space (see Chapter 4, 65ff). Now I will briefly examine the approaches taken by Žižek (1994), Jameson (1978), Eagleton (1991), and Lefebvre (1976, 12) in their efforts to restore this much misused and discredited concept. In general three main conceptions of ideology can be distinguished: 1) *neutral*, or ideology as dogma, value or belief system, or forms of consciousness; 2) *negative*, or ideology as a distorted reflection in thought derived from commodity fetishism; and 3) *positive*, or the ideas of a particular social class or group (Stewart-Steinberg 2001, 185; Brooker 2003). The first 'common sense' definition is of little use today – if not outdated and misleading (Jameson 1978, 417) – whereas the second and third pose critical problems in relation to architecture. For example, Žižek attempts to overcome the reality-illusion dualism implied in Lukács' notion of false consciousness by posing instead the triad doctrine-belief-ritual to explain the mediations between different levels of ideology. The ritual level would consist in the apparently objective or non-ideological aspect of everyday practices (e.g. everyday architecture). For his part Jameson proposes the categories of *function* and *system* to describe the dialectic between practice and 'consciousness of that practice' respectively. Eagleton suggests six different conceptions of ideology: as general production of meaning (cultural superstructure); ideas of a group or class; ideas that legitimate the interests of a particular group; ideas that legitimate a dominant social power; ideas that legitimate particular interests by way of deceit; and a socially necessary illusion. For his part, Lefebvre dismisses the social effectiveness of the

so-called cultural superstructure (philosophy, religion, aesthetics, etc.) arguing that 'practical' ideologies which do not present themselves as such are usually the most functional to the system – he is referring, of course, to the commodity fetishism of market exchange (Lefebvre 1976, 12). Thus for Lefebvre space is not the product of ideology:

Does space also secrete a false consciousness? An ideology – or ideologies? Abstract space, considered together with the forces that operate within it, some of which serve to sustain and some to modify it, may accurately be said to bring manifestations of false consciousness and ideology in its wake. As a space that is fetishized, that reduces possibilities, and cloaks conflicts and differences in illusory coherence and transparency, it clearly operates ideologically. Yet abstract space is the outcome not of an ideology or of false consciousness, but of a practice. Its falsification is self-generated. (Lefebvre 1991, 392-93)

The fact that architecture, as discipline and institution, is evidently ideological in several if not all of these different meanings combined is not my concern here, but rather the relation between these meanings and the political dimension defined above. Firstly, a radical critique of architectural ideology would be a necessary requirement for the conscious transformation of architectural practice. Secondly, it is also necessary to be aware that in order for this critique to be effective it must be 'translated' into the practical realm, namely, the practice of architecture itself – including its internal and external procedures – must become the critique, it must be the active negation of everything that prevents its working towards the reconfiguration of the social framework from which it emerges, along with those social forces striving for the restoration of use values, the body and the social management of property. In this respect, it is clear from the outset that such an endeavour cannot be limited to a particular group of people, but it must be intrinsically associative. As Lefebvre states:

(...) the production of a new space commensurate with the capacities of the productive forces (technology and knowledge) can never be brought about by any particular social group; it must of necessity result from relationships between groups - between classes or fractions of classes – on a world scale. (Lefebvre 1991, 380)

Apart from these limitations, Jameson identifies a central contradiction in the practice of architecture which reaches its critical point in its confrontation with private property relations. This contradiction is a reformulation of the *reproduction-transformation axis* explained in Chapter 4, which Jameson also has in mind when explaining the political dimension of cultural works: 'the political relationship of works of art to the societies they reside in can be determined according to the difference between *replication* (reproduction of the logic of that society) and *opposition* (the attempt to establish the elements of a utopian space radically different from the one in which we reside)' (Jameson 1997, 246). Seen from the standpoint of production, this contradiction takes the shape of space/architecture as part of the ever-changing productive forces of society (negation of existing reality) and as the manifestation of coercive power structures – the state and the market (affirmation of existing reality):

How then could a building establish itself as critical and put its context in negative or critical perspective? The perplexity of our political reflections on architecture finds itself concentrated in this question: since architecture becomes being itself, how can the *negative find any place in it?* In the other arts, again, the negative is lodged in the very medium and the material: words are not, and can never become, things; distance in literature is thereby secured. (Jameson 1997, 246)

Jameson seems to suggest that it's the very materiality of architecture what seriously limits its critical ability: it is too close to material production to produce the critical distance which other arts seem to enjoy. However, the opposite argument also holds true: precisely because architecture is bounded with the processes of material production, it can take more radical action than the rest of the arts.

At this point a new problem opens up, namely, the dialectic between the so called 'utopian' impulse of architecture versus the reality of the coercive laws of capitalism. According to Jameson, *utopia* possesses a dual aspect which emerges out of its original meaning in Thomas More's book: utopia as impulse, wish-fulfilment or imagining of radically different worlds freed from some 'root of all evils'; and utopia as the imagining of (political) programmes intended for realisation. Jameson warns us also about 'common sense' conceptions of utopia which are particularly uncritical:

(...) it is a mistake to approach Utopias with positive expectations, as though they offered visions of happy worlds, spaces of fulfillment and cooperation (...) Indeed, the attempt to establish positive criteria of the desirable society characterizes liberal political theory from Locke to Rawls, rather than the diagnostic interventions of the Utopians, which, like those of the great revolutionaries, always aim at the alleviation and elimination of the sources of exploitation and suffering, rather than at the composition of blueprints for bourgeois comfort. (Jameson 2005, 12)

The relation between utopia and the political emerges, as Jameson (2004, 43-45) suggests, in historical moments in which the latter seems to be suspended or totally incapable of modifying anything structural; this situation seems to open up the space for utopian speculation which cannot fail to act on the present as a kind of critical diagnosis (Jameson 2004, 38). Capitalism has represented this state of suspension many times throughout its history. In the case of space/architecture, the particular problem of *landed property* and *rent* represents the outer limit for any spatial/architectural attempt to concretely challenge an existing reality. Thus, this is one of the key issues that a diagnosis posed by a critical architectural utopia would have to address.

According to Gottdiener (1985, 162) rent is defined by Marx as a 'return to a factor of production (land)' which does not correspond to its natural properties or otherwise but to the way private property relations function within class society. More specifically, Harvey (1985, 63) defines monopoly rent (urban land) as a 'transfer payment realized through the monopoly power over land and resources conferred by the institution of private property'. At their most extreme, modernist architects sought to break free from the constraints of

specific locations by raising volumes above ground over *pilotis*, hence preserving the alleged autonomy of the new space (Jameson 1998, 30). Architects have developed ever since different formal strategies which had as their ultimate goal to conceal the constraints imposed by the private property of space (real estate market) and rent. As Lefebvre notices, the indifference modernist architects showed towards the soil upon which they 'pose' their buildings couldn't have been better for the interests of landowners, which, after an artificially produced scarcity of land, compete 'over specific locations or specific pieces of land in the city' (Gottdiener 1985, 175). Indeed, the exchangeability of space is a key feature of the abstract space of capitalism. Similar to the abstraction of labour from specific activities and locations in order to circulate it as a commodity on the labour market, space had to be homogenised according to the demands of the real estate market. Thus, Lefebvre is lapidary in assessing the illusory character of these formal strategies:

For all that architectural projects have a seeming objectivity, for all that the producers of space may occasionally have the best intentions in the world, the fact is that volumes are invariably dealt with in a way that refers the space in question back to the land, to a land that is still privately (and privatively) owned; built-up space is thus emancipated from the land *in appearance only*. At the same time, it is treated as an empty abstraction, at once geometric and visual in character. This relationship (...) is both a practice and an ideology: an ideology whose practitioners are unaware that their activity is of an ideological nature, even though their every gesture makes this fact concrete. The supposed solutions of the planners thus impose the constraints of exchangeability on everyday life, while presenting them as both natural (or normal) and technical requirements and often also as moral necessities (requirements of public morality). (Lefebvre 1991, 338)

Finally, the idea of an architecture that would act as a blockage to the circulation of capital seems suggestive, especially in the light of Harvey's theory of space as a barrier for accumulation. However, in advancing his notion of the 'archipelago', Aureli seems to think that this can be extrapolated directly into the realm of architectural form as he puts forward Mies van der Rohe's Seagram Building (specifically the 'plinth' upon which it stands) as an example of a supposedly critical position towards New York City (Aureli 2011, 34-41). However, the potential of Harvey's theory can be rethought at the architectural level of objects, precisely where the political dimension of architecture lies. Surely, this would entail thinking beyond the realm of 'design strategies' and instead addressing the level of the *project* as the internal structure which regulates relations (temporal, logical, numerical, topological, etc.) within the abstraction of the architectural plan. In the next and final part I will analyse the case of UNCTAD III as a concrete example of the hypotheses here exposed.

Part III

UNCTAD III and the Dialectics of Defeat

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Varas, Paulina, and José Llano, eds. 2011. *275 días: Sitio, Tiempo, Contexto y Afecciones Específicas*, 94. Santiago: 275 días. <http://tinyurl.com/btalif6>

*This building reflects the spirit of
work, creativity and
effort of the people of Chile,
represented by:*

*their workers
their technicians
their artists
their professionals*

*It was built in 275 days and finished
on April 3, 1972 during the popular
government of comrade
President, Salvador Allende G.*

*S.R.R**

7 1971, Utopia:

Industry, Modernism, and Class Struggle in the Chilean Road to Socialism

The building for the third international session of the *United Nations Conference on Trade and Development* (UNCTAD III)¹ was built in Santiago de Chile, between June 1971 and April 1972, during the government of socialist president Salvador Allende.² Its history is marked by a series of 'traumatic' social and political events, to say the least. In this chapter I will focus on a 'political economy' of the building in relation to particular aspects of the Chilean economic system during the late 1960s and early 1970s. To do so I will use the main hypotheses and concepts developed in the first and second parts of this research, the wider economic, social, and political background of the epoch, and the case and role of CORMU³ in the design of a new way of conceiving urban space and architecture influenced mainly by the Bauhaus and CIAM ideologies, but also by the social and political visions embedded in Chile's emerging modern culture.

The general premises on which the project was based – regarding the relationship between modern architecture and the existing city – need to be compared with the *actual* relationship that the building established with the city of Santiago. How did UNCTAD III (U3) relate to the existing city? What were the general and specific modes of this relationship? How did this relationship reflect U3's role in the revolutionary process started by Allende's government? Answering these questions requires distinguishing between the building as *sensory thing* and the building as *social object* (See Chapter 2).

As a concrete urban *thing* (intervention), it was originally meant to complete a larger modernist housing complex: San Borja Urban Renewal. This development was part of the urban policies carried out by CORMU (since 1966) and the housing policies of CORVI⁴ – both dependent of the Ministry of Housing and Urbanism (MINVU).⁵ The role and vision of these state institutions was largely progressive and focused on solving housing and urban problems of the working class. The building is located at the centre of Santiago on a triangular block. Its main entrance faces south to the city's main street, 'Alameda' (Libertador Bernardo O'Higgins), and to San Borja; to the west is Santa Lucia Hill (the city's foundational place); to the north Lastarria neighbourhood, Forestal Park, and San Cristobal Hill; and to the east, one of the main squares of the city, Plaza Baquedano. It is an isolated building composed of two main volumes, a slab-shaped horizontal volume containing all main conference halls and other facilities; and a tower comprising secretariat

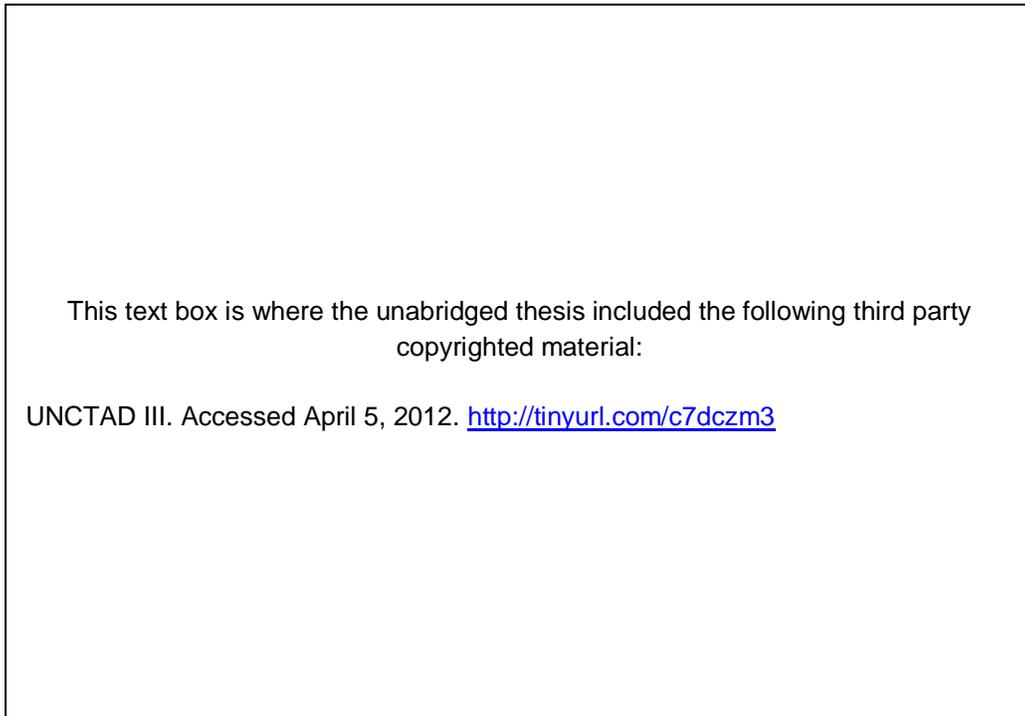


Fig.8. UNCTAD III building, slab-shaped building and tower, 1972

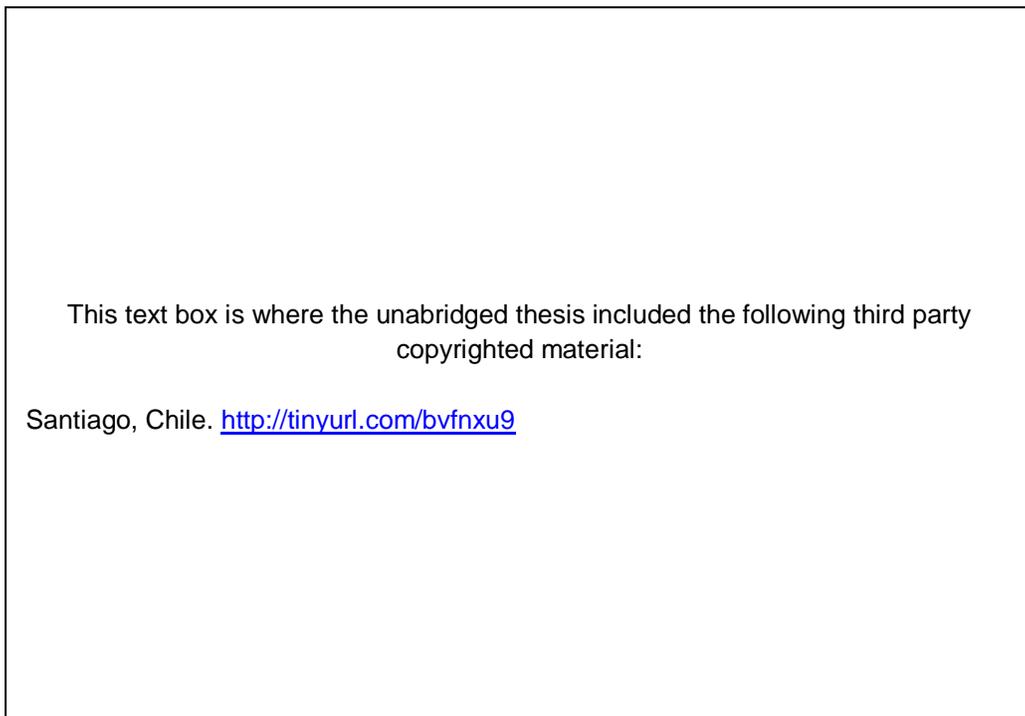


Fig.9. Urban context (Central Santiago), from San Cristobal Hill facing south, 1973

functions (Fig. 8). The horizontal block's general magnitude could be summed up as follows: 180 m length, 50 m width, and 20 m height; whereas the tower's is 24 m length, 20 m width, and 70 m height. The main building comprises three smaller buildings (of steel structure and corrugated sheet cladding), and upon them a flat steel spaceframe roof rests on sixteen concrete pillars. The building connects, through its main entrance, Alameda Avenue and Lastarria neighbourhood (Fig. 9).

As an urban *object*, the building materialises a more general scheme of intervention. CORMU saw the existing city as an obsolete and inefficient structure which was the direct outcome of the 'anarchy' and inequalities of capitalism (Honold and Poblete, quoted by Gámez 2006, 11). The main task of Chilean modernist planners and architects was to impose order on the existing city, an order which was deemed necessary, rational, universal, and humane. However, Chilean modernism differed in important aspects from more general developments within international modern architecture, and part of this was due to the influence of wider Latin American economic policies. As an architectural object, U3 was organised around a variation of the modern idea of the homogenous *plan libre*. The multiple activities related to the conference were organised into a single, compact, rectangular plan in which activities were 'freely' distributed around functional nuclei (Fig. 10).

As soon as this conditions and ideas are examined more closely, contradictions emerge. The ideology of CORMU largely reflected contradictory aims, such as the *integration* of the poor population through urbanisation – to prevent social uprisings – while at the same time arguing for a 'socialist' and modern *transformation* of the bourgeois city. Yet, as this discourse emerged from the impulse of 'productivism'⁶ – the dominant ideology of the modernising state – a deeper understanding of the economic conditions of those decades is needed.

From the early 1940s to the late 1960s the Chilean socio-economic formation⁷ was characterised by a partial import-substituting industrialisation model (ISI)⁸, following *developmentalist* economic theories.⁹ Chile's international economic relations were marked by the way in which underdeveloped countries tried to cope with modernisation without keeping their former dependency on first world nations, which they accused of imperialism and exploitation through unequal exchange.¹⁰ Under this impulse, a number of international institutions were created along the lines of concepts of 'development' and 'modernisation'¹¹ – e.g. CEPAL, UNCTAD.¹² In Chile, new state institutions such as CORFO¹³ were created to these effects. However, the model was 'exhausted' soon due to the impact of World War II and internal issues such as lack of demand in consumer goods.¹⁴ In 1958, the emerging bourgeoisie managed to elect Jorge Alessandri – a wealthy industrial man – as the new president, who promoted openness to foreign investment as a way of funding the ISI model in new sectors of the economy – e.g. capital goods and consumer durables (Vitale 1998, 207-208). During the 1950s and 1960s there were massive migratory movements of the peasantry to the urban centres. This resulted in a shortage of housing and other services which the state had to fulfil, but at the same time

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Fig.10. Site plan, first floor plan, cross section, and section detail

a rise in demand which allowed the ISI model to recover. From 1964 to 1970, President Eduardo Frei Montalva, a Christian democrat who followed the developmentalist lines recommended by CEPAL, relied heavily on loans from the US – which substantially increased the external debt as part of the ‘Alliance for Progress’ plan set-up by Kennedy in 1961¹⁵ – to finance his proposals. Two of his most popular measures were the ‘Chileanisation of copper’¹⁶ and the ‘Agrarian Reform’¹⁷ – both of which were only partially achieved.

As the 1929 financial crash resulted in a decrease of currency incomes – which were formerly used to import manufactured products – CEPAL suggested that Latin American governments should adopt the ISI model. Nonetheless, this process of national industrialisation was limited by its dependence on foreign monopoly capital, which exported the necessary machinery and inputs for the new surrogate industries (Vitale 1998, 11). For this reason the Chilean government under Alessandri and Frei endorsed duty-free to foreign imports. This allowed the industrial bourgeoisie to save from large investment in machinery, increasing the *organic composition of capital*,¹⁸ while relying on cheap labour power (variable capital) – mostly peasants coming to the urban centres – to substantially increase their profits and expand their industries from consumer goods to consumer and producer durables (Vitale 1998, 6, 207-208). Increasing inflation and social unrest due to poor living and working conditions, pressured the state to promote large investments in urbanisation (services, mass housing and transport) as a strategy to both integrate workers and peasants and provide the necessary infrastructure required by industrialisation (Vitale 1998, 146). Meanwhile the agrarian and commercial bourgeoisie started to shift their investments to the industrial sector, which soon began to be controlled by foreign companies through massive capital investment. Towards the late 1960s the Chilean accumulation model was characterised as being highly concentrated, mono-exporter, heterogeneous, with low savings, growth, and technical progress, and unable to overcome chronic inflation (Cornejo 2011, 174).

The general ideological climate which emerged from and influenced these economic conditions was dominated by two main trends. The first was the direct involvement of the dominant class with foreign capital in the context of the Cold War. This resulted in a fierce defence of private property and control over the means of production, masked as a defence of individual ‘freedom’ and ‘democracy’, represented by the *Christian Democratic Party* (DC) and the *National Party* (PN). The second was the rising peasant and working class movements demanding land and housing, which soon translated into ‘land occupations’. Boosted by the Agrarian Reform, the Cuban Revolution and the French May 68’ experiences, this period was characterised by escalating strikes and a rapid process of unionisation, which was violently repressed by Frei’s government, resulting in several massacres (Vitale 2000, 26). This situation, coupled with internal splits within DC, and the loss of hegemony of the industrial and financial bourgeoisie, led in 1970 to the triumph of the *Popular Unity* coalition (UP)¹⁹ represented by Salvador Allende (Saavedra 2007, 178).²⁰

The economic strategy pursued by Allende's government was summed up by him as follows: 'By unleashing into the economic system dynamic forces thwarted before, we intend to overcome the traditional growth model that was based almost exclusively on increasing exports and import substitution. Our strategy involves giving priority to popular consumption and to rely on the abilities of the domestic market' (Allende 1989, 317). Although Allende was openly Marxist and socialist, he made it clear that his government wouldn't achieve 'socialism' but rather open a 'path' towards it, according to Chile's own self-determination and situation. His government was *transitional*, he stated, but nonetheless 'popular, national, anti-imperialist, and revolutionary' (Allende 1983, 50). Thus, the so called 'Chilean road to socialism' emerges out of 'facing the need to initiate a new way of building the socialist society: our revolutionary road, the pluralistic path, anticipated by the classics of Marxism, but never before put into practice' (Allende 2009, 71).

The contradictions of the Chilean 'dependent' form of capitalism – which started to burst under Frei's government –, were deepened during the UP period. As Allende nationalised copper and all major industries – which were now part of the 'social property area'²¹ – and radicalised the Agrarian Reform, conflicts between these social processes and the legal and institutional apparatus led by and for the bourgeoisie, dramatically increased. Several attempts to prevent Allende to assume power were made by the far-right, including a failed coup attempt backed by the CIA.²² At the ideological level, the political centre threw media campaigns posing the coming 'communist tyranny' against 'freedom and democracy'.²³ Class struggle – as an objective social process – starts to become part of everyday Chilean reality.

As any state institution during this period, CORMU also took active part in the process of transformation of Chilean society. This was manifested in the radicalisation of its direction and aims. Despite having inherited the 'reformist' approach of Frei's administration, CORMU was called 'to replace the escalating classist dehumanisation that evidenced the chaotic growth of the city, by a policy of recovery of our landscape, our popular traditions and habits of recreation, guiding them now to the impoverished sectors of the population' (CORMU, quoted by Gámez 2006, 17). Here there is already an attempt to conciliate a socialist, modern, 'regionalist', and a welfare approach to the problem of the city, therefore, distancing from the influence of European and (north) American schemes (Raposo and Valencia 2005, 144; Raposo, Raposo and Valencia 2005, 158). The new institutions created during Frei's government were aimed to give the state a leading role in the production of urban space as a way to boost the economy as well as integrating the marginalised population into the process of modernisation (Raposo and Valencia 2005, 95). Yet, in practice, this process was directed mostly towards the middle classes, suggesting that increasing social polarisation brought about by capitalism's contradictions could be mitigated by repositioning the middle classes into the city centre (Raposo and Valencia 2005, 139). San Borja Urban Renewal represented precisely this kind of attempt. Thus, the government expected that 'from these places of renewal would begin the

process of gradual shortening of inherited social distances' (Raposo, Raposo and Valencia 2005, 247-248).

Once in power, UP was critical of the attempts made by DC. Relegation of popular masses towards the cities' periphery, lack of social content in housing policies, and dominance of market criteria, were denounced and confronted. Yet, despite its radical claims against the bourgeois city, in its actual practice CORMU always acknowledged its dependence on private investments to carry on its programme (Raposo, Valencia and Raposo 2005, 95, 98, 135). The strategic switch into the *second circuit of capital* – planned by the state – could then be reoriented to correct social fragmentation in the space of the city itself. This was materialised by building popular neighbourhoods in middle and upper class areas (Raposo and Valencia 2005, 109). CORMU'S legal attributions to put these ideas into practice were broad. It could buy, sell, and expropriate immediately a large number of sites in order to build 'harmonic ensembles' (Raposo and Valencia 2005, 98) justified by the fact that the city required 'a speedy instrument regarding expropriations since the social interest is above any individual consideration' (Schapira, quoted by Gámez 2006, 10).

With this background in mind, U3 can be now approached more clearly. A new dialectical pair must be added to the initial 'descriptive' distinction between the building as *thing* and *object*. For this building is a confluence of many factors of political, architectural, and economic relevance. The question is: which of them are to be considered as inherent to its architecture and which part of the contingency of the historical situation? This will compel us to distinguish between the building as the result and condition of a *concrete social practice*, and as an *ideological representation* – with all its associated meanings and symbolism, which are particularly strong in this case.

After one year and a half of government, the national balance was optimistic due to a successful policy of redistribution and economic reactivation, which in turn increased popular support (Harnecker 1998, 34). This was reflected in local elections (51% of votes) and the designation of Santiago de Chile, by the UNCTAD Commission, to organise the third version of the conference on condition that the required facilities could be provided. Furthermore, UNCTAD was strongly influenced by *dependencia* Marxist theorists²⁴ from CEPAL, who argued that the situation of underdeveloped countries was not due to their lack of inclusion into the world market, but by the very way in which they were integrated into it (Hettne 2001, 137). Allende himself was influenced by this view, stating that 'the task assigned to UNCTAD III is figuring out new economic and trade structures precisely because those established after the war, severely harming developing countries, are falling apart and will disappear' (Allende 1989, 319).²⁵ From the beginning he saw the conference as an opportunity to show to the world the benefits of the structural changes he was carrying out.

The most notable thing about the building was the extraordinary effort it demanded to the people involved: just ten months to build almost 40.000 m² – a task that normally took between three and four years in that epoch. The team of five architects (José Covacevic,

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Fig.11. Early and last stage models, 1971

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UNCTAD III Early Sketches. CORMU. *Auca*, no. 22 (April 1972). Accessed December 6, 2011. <http://tinyurl.com/cqjmlpg>, <http://tinyurl.com/blwo33p>

Fig.12. Constructive and structural concept 'parallel works'; tunnel from housing to park

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Fig.13. Plaza-building; Station-building

Juan Echeñique, Hugo Gaggero, Sergio González, and José Medina) belonged to CORMU and shared a strong ideological cohesion and commitment (Raposo and Valencia 2005, 110). The site was chosen due to its central location and since one of the apartment towers – part of San Borja – was already being built, which was harnessed to save time (Fig. 11). A strategy was needed to proceed as fast as possible. According to its colleagues, González came up with the original idea for the building: a 'large tent' with all the facilities arranged underneath (Wong 2011, 66). In this way such tasks as building the roof and the conference halls could be performed simultaneously (Fig. 12). To this initial strategy several ideas followed: the continuity ('tunnel') from San Borja all the way through the building towards Lastarria neighbourhood (Fig. 12); the idea of a 'plaza-building'; and that it should also function as a 'station' with underground and aboveground connections to the city (Fig. 13). Also, Allende proposed that after the conference the building should turn into a cultural centre which would return the building to the workers (Ulibarri 1972, 5).

Despite its 'severe' and monumental appearance, U3 was an example of the already mentioned Latin American variant of international modern architecture. This is clear in two important aspects: the 'integration' of the building within the urban fabric (as opposed to its clear-cut separation) and the concept of *integrated art* developed by modern artists who intervened the building during the construction process as part of its function as the future *Gabriela Mistral Metropolitan Cultural Centre* (CCMGM) (Fig. 14). According to U3's artistic advisor Eduardo Martínez Bonatti, modern art should not be confined into a museum, turned into commodity-art – a privilege for the upper classes. An 'anti-museum art' should be 'a museum across the city, all over the environment'; an art 'incorporated as one more element of reality', for 'it is not the property of any particular being, it is property of a collective social milieu' (Martínez Bonatti 1972, 4). While artists were proclaiming the anti-bourgeois and revolutionary convergence between art and life, architects were certainly more moderated – along the reformist lines of the state –, occasionally raising the flag of 'revolution', but finally conforming to the dictates of the (abstract) space of capitalism. The parallel with early European avant-gardes wasn't mere coincidence though, nor was it just a matter of 'cultural influence'. After working at the Bauhaus and the USSR with Meyer, Hungarian architect Tibor Weiner travelled to Chile and taught at the Universidad de Chile with Sergio González as his assistant, who later replaced him (Maulén 2006, 84).

Notwithstanding the architects' ideas for the building, focusing merely on 'architectural concepts' would be hardly satisfactory for this analysis. They must be referred back to their ideological framework and even further, to the social practice from which they emerged. The already discussed notion of *abstract space* – the space of accumulation – will have to be considered in relation to the particular 'modernism' which this building intended to realise. Thus, an inevitable question looms: how a space brought about by modernity (capitalism) could be used to embody a socialist revolution? Did U3 manage to bridge the gap between the critical negation of the existing (bourgeois) city and the positive foreshadowing of a future 'socialist' space? What about the building as a social practice – as organisation of activities, both for its production and its use? Functional abstractions

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UNCTAD III Integrated Artwork:

Kitchen Chimneys (Felix Maruenda). Varas, Paulina, and José Llano, eds. 2011. *275 días: Sitio, Tiempo, Contexto y Afecciones Específicas*, 247. Santiago: 275 días. <http://tinyurl.com/btalif6>

Conference Halls Door Handles (Ricardo Meza). Ibid, 244.

Hanging Whales (Alfredo Manzano). Ibid, 234.

Skylights (Juan Bernal). Accessed December 6, 2011. <http://tinyurl.com/cs5vryf>

Wall Painting and Lighting (Guillermo Nuñez). Varas, Paulina, and José Llano, *275 días*, 234.

Wall Installation (Mario Toral). Accessed December 6, 2011. <http://tinyurl.com/c6mg2bz>

Fig.14. *Integrated Art* at UNCTAD III (left to right, above to below): Felix Maruenda (kitchen chimneys), Ricardo Meza (door handles), Alfredo Manzano (hanging whales), Juan Bernal (skylights), Guillermo Nuñez (wall painting and lighting), Mario Toral (wall installation)

have to be confronted with the (social) abstraction of objects which structured the activities of workers and 'users'. Was U3 the last 'hope' of the Chilean road to socialism, its last utopia? As will be seen, the tension between modern and socialist utopias embodied in this building – between reproduction and transformation, the state and workers – will have an unexpected turn.

Following the building's opening and the development of the conference during April and May 1972, something changed.²⁶ The government had to confront major economic problems, such as the decline in private investment, hyperinflation, supply shortage, high levels of speculation and flight of capital, and several strikes. Some economists have attempted to explain these issues solely as failures due to the state's 'irresponsibility', or on its 'populist' spending and redistribution through salary increase (Cornejo 2011, 182; Meller 1996, 117-133; Ffrench-Davis 2003, 28-29). But their conclusions rest on ignoring the economic impact of class struggle, the reactionary sabotage of the bourgeoisie, and US interventionism (Cornejo 2011, 181-182). Allende and the working class joined forces to face the real causes of the economic predicament: black propaganda, bank run, black market, hoarding, terrorist attacks on industrial assets, US invisible blockade (veto to international loans and copper devaluation), ceasing of spare parts imports, and financing training of paramilitary fascist groups to create an appropriate 'coup climate' (Harnecker 1998, 36). To counteract some of these actions without transferring their impacts on workers, the government had to expand the money supply – with subsequent inflationary pressures (Harnecker 1998, 34) – and create DINAC, JAP, and 'popular markets'²⁷ to control supply, distribution, and prices. Complementing these measures, workers began to take control of expropriated factories, forming 'industrial belts'²⁸, and organising 'communal commands' on popular neighbourhoods to voluntarily help government agencies. This spirit of cooperation among workers, and between them and the government, will characterise what begun to be known as *popular power*, the spontaneous organisation and collective class consciousness of workers in the struggle for their economic emancipation.

The people involved in U3's construction soon realised that not only it was going to be an enormous challenge but that, in order to achieve their goal, the labour process itself should undergo a radical transformation. The architects and engineers recall the fact that workers were very committed to the task, they wanted to show they 'were able to *build* a more just society' (Troncoso 2011, 60). Furthermore, according to Hellmuth Stuenkel (one of the engineers) workers participated in planning meetings proposing improvements to save time. Even more, he added that 'without inverting the pyramid we couldn't move forward, we were simply going to fail' (Stuenkel 2007). This has to be understood as part of the overall social situation, of a 'battle of production'²⁹ – to counteract the opposition's economic boycott (Fig. 15). However, DC still had influence on some sectors of the working class and paid them to strike against the government on 'single issue' demands (Harnecker 1998, 36). To divide and turn workers against themselves – against their interests as class – was a hard blow to the government. Yet, workers who were conscious of this understood they had to work twice as fast to keep production going. To achieve

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VKHUTEMAS poster made for the Soviet Union's First Five-Years Plan (1928).
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Fig.15. Left: AUCA N°22 cover showing UNCTAD III as a 'battle of production' (1972)
Right: VKHUTEMAS poster made for the Soviet Union's First Five-Years Plan (1928)

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Fig.16. North side access and tower; west side access through an alleyway

this they started to organise the labour process by themselves, denouncing their managers' boycotts to government agencies. U3 clearly reflected this climate, particularly when there was scarcity of spare parts to run some machines, or when the engineers' trade union went on strike, and workers replaced them (Maulén 2006, 90).

The dialectical relationship between a 'constructivist' functionalism – identified with Marxism and 'scientific-mechanical' materialism – and a 'popular' modernism – incorporating art, the urban fabric, and popular symbolism – was the dilemma for U3's architects. The first case was reflected in the struggle with organisation, time, production, efficiency, and all those factors which are directly 'determined by life' (Meyer 1970, 117). The second, in the active incorporation of art, popular references such as the idea of an 'eaves-building' reminiscent of colonial porches (Maulén 2006, 86), its economic-driven 'brutalist' aesthetics, and its 'piazzettas' and terraced gardens (Fig. 16). However, from the standpoint of abstract space, not only these tendencies are not opposed, but complementary (see Chapter 5, 84).

1973, Tragedy:

The Neoliberal Utopia and the Road to Postmodernism

During April 1972, there were massive demonstrations both against and for the government. Far-right and fascists groups attacked U3 building with stones, as they saw it as symbol of Allende's government; workers who were at the construction site defended the building from the attacks (Wong 2011, 67). The truck drivers' general strike in October mobilised vast sectors of the middle class with the financial and political support of PN and DC. The middle class – composed mainly of professional guilds, merchants, and transport workers – radicalised, first in their defence of the status quo ('freedom') against state policies; second, through an 'authoritarian drift', openly pro-coup (Moulian 2006, 265). This situation was paralleled by a crisis of direction within UP and its supporting movements. Various analysts coincide in considering October 1972 as a turning point in the class struggle, as well as a sort of 'general rehearsal' which revealed the practical possibility of a coup in the short-term (Moulian 2006, 261; Garretón 1983, 56; Harnecker 1998, 32).

U3 functioned during 1972 and 1973 as the CCMGM cultural centre Allende had proposed. This period was characterised by the massive amount of people which visited the building, either to attend to cultural and social events, to lunch at the canteen, or simply to tour around its facilities (Ulibarri 1972).

Due to the multiple clashes between supporters and detractors, and the terrorists bombings of fascists groups financed by the bourgeoisie, the government declared a state of emergency and was helped by the military. In November 1972, President Allende thought that putting a few senior officers would calm things down, but they resigned short after on pressures from other military officers who supported a coup. During early 1973, the possibility of a military coup was omnipresent; the question was 'when'. Despite this, UP obtained 43.4% of votes in legislative elections, frustrating DC plans to legally destitute the president. In April 1973 begins a long miner's strike supported by top managers and the political opposition.

The bombing of La Moneda on September 11th 1973 was an act that went beyond a military intervention, as Moulian suggests, it was endowed with a foundational violence,¹ a message to UP and its supporters – the 'Marxist cancer' to be removed, in the words of the Junta (Moulian 2006, 270). Only one day after the coup, an executive order was issued to change U3's use and name for Diego Portales.² Since La Moneda was partially

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Fig.17. Above: Ricardo Meza's conference halls door handles turned upside down. Below: A woman being registered at San Borja, near UNCTAD III

destroyed, U3 would serve as the Junta's headquarters. What an irony of history! The 'building of the workers' – a public space for culture and sociability – turned into the command centre of a fascist dictatorship supported by the national and international capitalist class. This wasn't mere coincidence or simply a matter of practical consideration though. Since U3 was one of the most visible symbols of UP and Allende's government, the Junta seized control over it as one takes back the king's seat. The commemorative stone plate and all the artwork was destroyed, removed, or changed.³ Yet, simply changing the use of the building was not enough, for the military had to give a clear sign of their redemptive message: 'order, work, and obedience'.⁴ The building was closed and fenced, the canteen's glass windows were replaced by brick walls, and most of San Borja's residents were arrested (Fig. 17). The building turned into a metaphoric 'eye of power' of the authoritarian state: 'The transparent and accessible building originally intended as cultural centre and museum (...) was turned into a tower from which you could discipline and punish the country' (Castillo 2011, 89).

A path-breaking cybernetic project for a planned socialist economy managed in real time was also destroyed by the armed forces. The project was called *Cybersyn* and it was led by the British theorist of cybernetics, Stafford Beer (see Medina 2011). The project had direct connections with U3 since the team in charge of the prototype design for the control room – from which Allende and its ministers would have accessed in real time to all kinds of data, from economic performance to direct participation of the people in key planning decisions – was directed by the German designer from the HfG school (founded by Max Bill and several ex-Bauhaus members), Gui Bonsiepe, who was also appointed as designer of several interior features of U3 (Ossa and Rivera 2011, 115). Furthermore, U3's engineer Hellmuth Stuken introduced the use of PERT software for managing construction data efficiently; this was similar to and perhaps influenced by Beer's theories (Ossa and Rivera 2011, 116).

How could U3's modern-socialist utopia be used against itself? If the building was instrumental in announcing the path to a new society – in foreshadowing a socialist use of technology as with *Cybersyn*– how could it be easily turned into a repressive device and symbol? To clarify this requires confronting the earlier political hypothesis – regarding architecture as organised mediation between man and nature (and second nature) – with U3 as product and condition of a social practice, and as material representation of various political ideologies. If the brutal disciplining of the social body was exerted at both of these levels, the problem lies in identifying which elements in each one are intrinsic features of the building and which aren't. The issue is not so much about the material changes in the building, but the nature of its spatio-temporal organisation. I have shown that is impossible to define a modern-abstract conception space/architecture separate from its material roots in the accumulation of capital and the historical development of private property relations. Also space, architecture, and buildings cannot simply and directly *be* political in the narrow of senses (politics). Modern capitalist space/architecture is a political reality because it is the outcome and condition for capitalism to reproduce itself; it is clearly not simply a matter

of representation of political ideas – in this sense, the term ‘capitalist space’ borders tautology.

U3 was without a doubt part of the capitalist production of architecture just like any other building in Santiago – subject to the same conditions of property relations and capital circulation. The difference lied in its attempt to confront this mode of production by using essentially that same space and technology, but challenging its established form of production. In no other building workers had a say or directly participated in its planning and management. Where lies precisely its emancipatory potential then? On its explicitly political content, its production process, or its design? To answer this, the *reproduction-transformation axis* must be refined in terms of the dialectic between *internal* properties of the building (production, practice, objects) and its *external* conditions (things, uses, political meanings, representation) (Fig. 18). This *internal-external* dialectic must be present at both endpoints of the axis. For example, U3’s production process was part of the wider ‘battle of production’ – in which productivity was paradoxically put against capital accumulation and in favour of a planned economy –, and in this materialist sense, part of the pre-revolutionary *transformation* of Chilean society. These changes in production determined the ‘parallel works’ strategy which was key determinant in the building’s design. But other features were rather *external* or contingent, for instance, the rhetorical terms in which the building was addressed by Allende, where it figures merely as the passive stage for a political event: ‘Among the walls that begin to rise here, you will hear the voice of nations struggling to emerge from underdevelopment and stagnation, to give an end to the arbitrary structure of trade and the international financial system, to this day destined to benefit powerful nations at the expense of the weak’ (Allende 1971, 1). Also, the various meanings attributed to the building were in close association with UP’s ideology of a democratic road to socialism in which the (capitalist) modernisation process was seen as a necessary transitional stage towards socialism (Moulian 2006, 272).

All of these contradictions, whether ideological, aesthetic, or material, coalesce around the central tension between the aforementioned categories of *reproduction* and *transformation*. What is important to notice here is how opposed categories such as functionalism and formalism revolve around this spatio-temporal axis with no fixed position. Functionalist-materialism, for example, can have a progressive function by aiming at transforming the material base of society, but it can also be used to shatter differences into a complete objectification of architecture – enabling the dominance of exchange over use. A difficult problem opens up here: the problem of architecture as means – of consumption, production, accumulation, power. Can the instrumental use of architecture change it to the point of turning it against the purpose for which it was conceived? Does this mean that space and buildings are neutral material devices waiting to be ‘signified’ and ‘politicised’ by ‘users’?

During the first years of the dictatorship the economic changes were minor, whereas the brutal repression, torture and murder of political detractors and their families reinforced the authoritarian rule of state terror. It was only towards 1975, after the visit of American

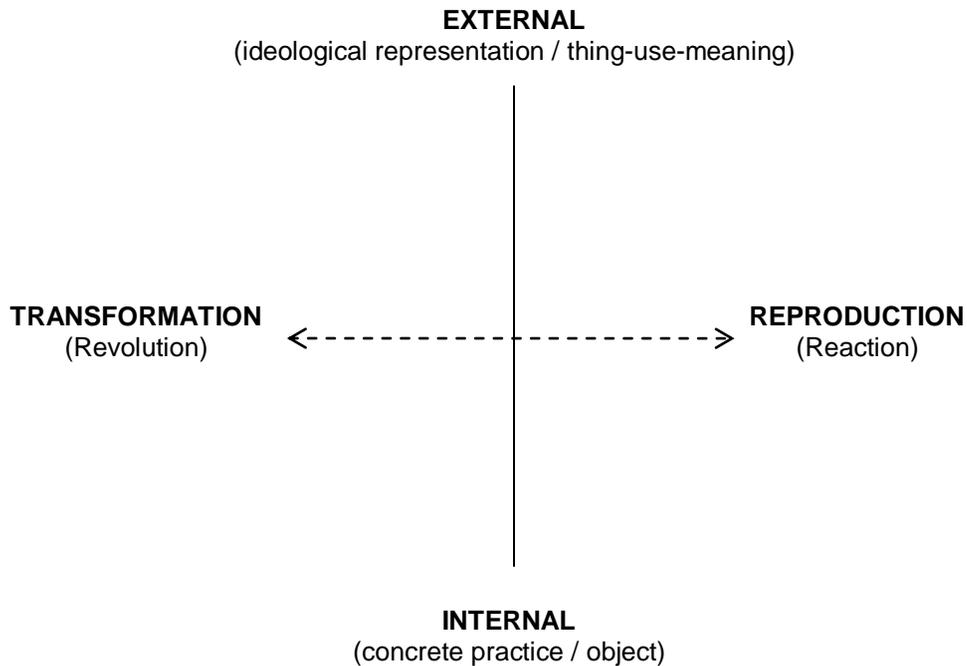


Fig.18. Spatio-temporal axis (internal-external dialectic)

economist Milton Friedman and the return to the country of his Chilean students at Chicago University (the so called 'Chicago Boys'), that radical free market measures began to be implemented (Moulian 2006, 270). As Harvey (2007, 7-9) notices, the Chilean case has to be understood within the general context of the long transition of capitalism from its monopolistic stage (along with Keynesian state reformism) towards its global or multinational stage, sometimes characterised as neoliberal. Indeed, for Harvey (2007, 31, 39) this was part of a global project of the international bourgeoisie for the restoration of its class power, much damaged by strong union and social movements during the 1960s.⁵ For Moulian (2006, 270) the dictatorship represents the intrinsic violence needed by the restructuring of Chilean capitalism in accordance with the demands of foreign finance capital. The repression created the political conditions for the development of what could be called the 'neoliberal utopia', namely, the idea of a counter-revolution that would restore the 'natural balance' of free market society and bring prosperity after labour and social organisations were to be removed out the picture. A powerful mystification was set up during this period throughout the social body. The intention was to present and legitimise the coup as a new independence, as a necessary break with the past to restore public order.

All the modernist impetus described above was dramatically finished. CORMU closed its doors in 1976 and was replaced by SERVIU.⁶ Unlike other countries the transition from modernism to postmodernism was completely abrupt. Many modernist architects who worked for state went into exile or disappeared. Consequently, postmodern Chilean architecture was ideologically associated to the repressive regime, the neoliberal wave of massive privatisations, and 'accumulation by dispossession' (Harvey 2007, 160-65), much in the way it became to be associated to the politics of Regan and Thatcher in the US and Britain respectively (McLeod 1989). This was mainly a neoconservative architecture devoid from the social significance of its modernist predecessors. In 1980, a referendum was called to approve a new constitution – written under the suggestions of the Chicago Boys and condensed in a book called *The Brick* (Cavallo, Salazar and Sepúlveda 1988, 63-70) – which was passed under highly questionable and undemocratic conditions.

After a number of massive protests against the dictatorship during 1982 and 1983, the national capitalist class began to negotiate an 'agreement' with the opposition to further consolidate its neoliberal project. Among several conditions, the two most important were not to touch the constitution or the general economic structure, thus securing the accumulation model imposed by the Chicago Boys. The so called 'transition to democracy' in 1988 was realised in strict accordance with these requirements of the capitalist class and its hegemonic fraction (financiers) (Saavedra 2007, 181). A new coalition known as *Concertación* was created by the former pro-coup DC and a 'renewed' Socialist Party, among other minor parties. This center-left coalition would dominate during 20 years to follow, from 1990 to 2010, essentially managing and deepening the economic model inherited from the dictatorship while introducing minor social reforms (Saavedra 2007, 180). According to Moulian (2006, 272), the political forces which currently dominate in Chile (*Concertación* and *Alianza*, this latter representing the parties which supported the coup and dictatorship) do not compete for different political projects but merely for political power.

After the negotiated transition to democracy, U3's tower remained as Ministry of Defence and the conference halls were used occasionally as a place for political and business events, such as the announcement of the referendum which ended Pinochet's dictatorship. Due to lack of maintenance, on March 5th 2006 a massive fire completely destroyed half of U3 (Fig. 19). Since the building was generally associated to the dictatorship rather than UP, people outside the building during the fire began to clap as the giant roof structure collapsed. Almost immediately the government began to speculate on the future of the building. Less than a year after the fire, President Michelle Bachelet called a national competition to rebuilt U3, now renamed as *Gabriela Mistral Cultural Centre* (GAM). After a disputed process, the studio of architect Cristián Fernández was awarded with the first prize.

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Fig.19. Above: La Moneda being bombarded, 1973. Below: UNCTAD III destroyed by the fire, 2006

GAM and the Flattening of History as Spectacle

Despite being critical towards the UP experience, Moulián acknowledges the period as one of the most democratic in Chilean history. It attempted to expand the limitations of liberal democracy beyond the political sphere and mere participation (Moulian 2006, 267). Examples of the practice of direct democracy at workplaces were seen usually in the social property industries and later at the 'industrial belts', in which workers collectively made key decisions for increasing production and prevent the attacks and boycotts of the bourgeoisie. In the neighbourhoods, people organised for the direct distribution of food and supplies, and to force the opening of shops hoarding their stock to provoke supply shortages. It could be argued that a certain *right to city*¹ was exercised during this period. The people's right to shape their own world collectively was put into practice by the almost spontaneous and territorial organisation of the population and workers. At a more institutionalised level, U3 can be understood as part of this impulse of 'taking back the city', which in any case, was nothing more than part of the struggle for the collective control over the means of production and the products of human labour. All matters associated to the building followed this direction. For example, at the traditional 'roof beams' celebration² (Fig. 20) workers received a document containing all the names of the people involved in the construction listed alphabetically, plus the president's greetings. On the commemorative stone plate, the traditional hierarchy was reversed with 'workers' at the top.

Did U3's modern architecture have an intrinsically political dimension? Yes and no. In the narrow sense of politics, no. As any other building it cannot be clearly identified with a political ideology, as this depends on external factors such as changes in use, and the overall historical and urban situation. Yet, the physical organisation of space and time is instrumental not only to the state but to markets and capital circulation. U3's inherent political dimension lies in its concrete relationship with the existing urban fabric: it negated or integrated to the city? It critiqued or celebrated it? A middle ground perhaps? The emphasis on U3's connection to the city, for example, had two contradictory associations. On one hand, the building was itself a complex, a small city in its own right. Its openness went along with the claim of being a workers' building and this was seen, for instance, in the relevance of its 'popular canteen' as a social space – which provided lunch for 6.000 workers daily. On the other, the importance of conceiving a 'station-building' – as the architects called it – lied not so much in practical considerations, but rather on the

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Roof Beams Celebration. Accessed November 4, 2012. <http://tinyurl.com/ck8qpgc>

Fig.20. Roof beams celebration (lunch for workers at the main avenue of Santiago), October 1971

crucial role networks of communication play within the capitalist city (Chapter 4, 70). From this point of view, a highly interconnected building like U3 enhanced, if not directly, exchange and circulation of commodities and capital. The original idea even considered a direct connection to the underground station and San Borja through bridges and tunnels which failed to materialise (Gaggero, Covacevic and Llano 2011, 31, 34).

Being U3 a concrete and complex historical case, different and contradictory elements coexisted within it. Its conception and production process clearly belonged to the *transformation* pole in its *internal* variant (intrinsic qualities). This suggests that the critique and transformation of social practices and methods in the production process of architecture was a key feature of it. The organisation of a collaborative labour process in which hierarchy was secondary, and the questioning of private property relations (acknowledgement of the building as property of those who actually produced it), went hand in hand with the struggle to finish the building on time under adverse economic conditions. Although U3 was a public building – and in that restricted sense not a commodity to be sold – the process by which it was built was unavoidably part of the circuits of capital – state investment, circulation of commodities such as raw materials, construction materials, machinery (fixed capital), and labour-power. BELFI and DESCO, the two private companies in charge of the construction, were under the supervision of CORMU. In order to finish on time, a three-shift modality was established, and Allende usually visited the site to encourage workers (Wong 2011, 67). A particular form of exploitation took place here: workers were being objectively exploited by producing more value (socially necessary labour-time) than they were being paid. The main beneficiary of the surplus produced was the government, but Allende decided to ‘return’ the building back to the workers. In his words:

We want this tower to be delivered, and so I shall propose, to the Chilean women and children, and we want that plate to be the material base of the great National Institute of Culture (...) There workers will understand that here, in a new conception of human rights working mainly for man, putting the economy at his service, we want culture not to be an elite’s property, but that have access to it – and legitimate – the masses passed over and neglected so far, mainly the workers of the land, the factory, the company or the coast. (Allende 2008, 107)

Did the spatial and temporal organisation of U3’s plan (objects) fundamentally challenge the capitalist production of space in Santiago? No. First, the problem is that of a mismatch between the architects’ political and moral discourse and the underlying structure of their design. This contradiction is not specific to U3 but runs throughout the history of modern architecture: modernism as abstract aesthetic formalism and modernism as pure materialist functionalism. Tafuri has identified this internal conflict in Hannes Meyer’s attempt to conflate modern architecture and Marxism (Tafuri and Dal Co 1980, 173). Secondly, I have shown how Lefebvre’s notion of *abstract space* was the material base that enabled the emergence of Bauhaus theories and modernist architecture in general, and not the other way around (Lefebvre 1991, 304). That is, architects did not ‘invent’ abstract (modern) space; their theories reproduced something that was already there, a

real abstraction functioning and organising production and society. It follows that even if CORMU attempted an 'aestheticisation of politics' (Raposo, Raposo and Valencia 2005, 168) – to announce social change on the built environment itself –, it failed to foreshadow an architecture that *structurally* confronted the capitalist production of space. Yet, it may be asked if this was at all possible under those historical circumstances – during that stage of development of the revolutionary process.

A further specification of the analytical framework opens up at this point. In the Chilean case, the *transformation* pole is associated to a *revolution* which was, first and foremost, political in nature – as opposed to economical. However, the territorial organisation of workers and the expropriation of land and industries, suggests that the process was rapidly developing into an openly spatial and economic strategy. The hypothesis about the political nature of space/architecture must be assessed against U3's concrete revolutionary potential. The transformative possibilities of U3 lied in the concrete *mode of relationship* it established between the inhabitants of Santiago and their immediate environment; and between that already existing space and the new one which the design foreshadowed. This includes the relationship established between the organisation of work (design and construction process) and the broader 'battle of production' situation. On the other side, we have the *reproduction* pole, which in this case is closely tied to *reaction* as the restoration of class power by the bourgeoisie. Certainly, U3's emphasis on abstraction and visualisation played a role that went beyond mere aesthetics. Although its embracement of functionalism and constructivism paralleled the radical techno-utopias from Europe and Japan during those decades,³ the truth is that this optimism (positivism) towards the emancipatory potential of technology and abstraction was grounded in a specific type of social organisation which depended on all sort of abstractions in order to reproduce itself – value, money, capital, the commodity, in short, the reign of the universal over the particular, of exchange over use. These abstractions (including modern space) are concrete, human products which follow no human purpose but its own independent 'mad dance'; and they do not appear for what they actually are (social products) but as autonomous realities (fetishes). Hence the illusion of space/architecture as neutral, abstract, visual, and empty device – in brief, as the product of 'abstract' ideas. Was this the case with U3? The separation between bearing structure and enclosing walls, the withering-away of the façade, the isotropic space-frame, the semi-suspended volumes and its flat surfaces, the bridges and external staircases (Fig. 22): not only were they fundamental premises of international modern architecture, but – just as with the early modern movement – the result of an institutionalisation of the technological rationality of capitalism and its bureaucratic state apparatus. Subject to this *programme*, U3 was nothing more than the materialisation of a monumental abstraction in which the human body and its social dimension are shattered into a strictly visual spectacle. This would be the case were not for the artists' intervention and the exterior works mentioned above. These two features allowed the building not to completely fall under the brutal reduction of the visual-readable realm which capitalism, through abstract space, demands for its reproduction (Fig. 21).

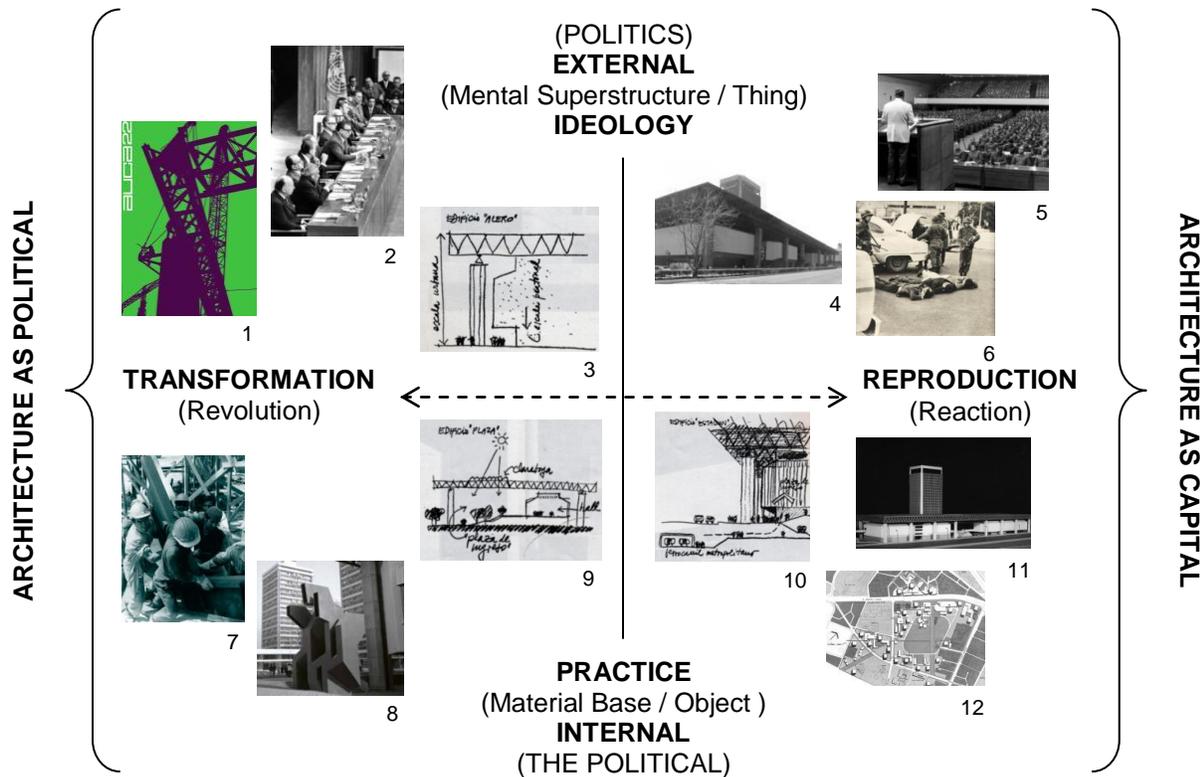


Fig.21. Spatio-temporal axis developed for UNCTAD III

Transformation as Ideology:

- 1. Socialist techno-utopia
- 2. U3 conference
- 3. Constructivist aesthetic

Reproduction as Ideology:

- 4. 'Bunker' aesthetic / Central intelligence
- 5. Fascism (market-utopia)
- 6. State terrorism

Transformation as Practice:

- 7. Social property / Production process (workers committees)
- 8. Integrated art
- 9. Plaza-building

Reproduction as Practice:

- 10. Station-building
- 11. Abstract space (visual-readable)
- 12. Strategic space (city planning)

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North Side Façade. Varas, Paulina, and José Llano, eds. 2011. *275 días: Sitio, Tiempo, Contexto y Afecciones Específicas*, 139. Santiago: 275 días. <http://tinyurl.com/btalif6>

Fig.22. North side façade

Finally, in 2010 and after a polemical architectural competition which was declared null and void in first instance, Fernández's new design (Fig. 23) was built upon the remaining parts of the old building. This design hardly considered any of the basic features of U3, limiting to a highly aesthetised and speculative proposal. The logic of abstract space promoted by modernist architects not only seems to continue in the new proposal but its contradictory features are accentuated even more, and devoid of any social content. The façade displays a thin membrane of perforated metal sheet onto which images are projected. The interiors are reduced to its minimal functional expression. The building turns in its entirety into a fuzzy urban spectacle in which the history of U3 has no presence in any form. The new building also follows main features of postmodern architecture (not to be confused with postmodernist architectural style) such as the pastiche of multiple and unconnected aesthetic repertoires, even under the banner of homogeneity (Castillo 2011, 92). The building is flattened out both literally (reduced to surface visual pyrotechnics) and internally as the new design erases remorselessly most of the traces of the old building. As Castillo (2011, 92) points out, the layers of the old and new building are ruthlessly superimposed onto each other without any account taken for an architectural-political mediation between them.

There seems to be a structural linkage between the origins of modern architecture in abstract space, and the aim to start a (spatial) revolution using that same space. This was U3's central contradiction, trapped between *architecture as a political device*, and *architecture as an abstraction of capital*. As a *political instrument* its role was to signal the utopian break with the bourgeois city, while acknowledging its dependence from it. Its *intrinsic* transformative potential lied more in its production process – which paralleled the collective management of space seen at the factories – than in its architectural qualities (objects and things, structure and appearance), or its relationship with the existing city. Its *external* revolutionary character lied in the relevance of its history, its symbolism, and the role the conference played in Allende's government. As a *real abstraction* (capital), its *intrinsic* confinement to the parameters of abstract space prevented a more radical approach regarding the foreshadowing of an alternative space that would challenge some of the reductive and repressive features of capitalist space. Perhaps this was one of the reasons why the military fitted its structure without major modifications. Its contingent association with the reactionary forces, repression and state terrorism were part of the radical turn accomplished by the bourgeois counter-revolution.

As has been shown, the building for UNCTAD III constituted a unique experience during the truncated Chilean road to socialism. The assessment of its history has shed some light into the difficult questions related to the political, social, and economical nature of architecture. The vision and tenacity of all the people involved in its planning and construction shows that a revolutionary spatial practice can be put into effect even in the most adverse economic and political conditions, even if its success can only be partial.

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GAM Rendering (Cristián Fenández Architects). Accessed August 4, 2012. <http://tinyurl.com/cqhup27>

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GAM's First stage of reconstruction. Accessed November 9, 2012. <http://tinyurl.com/c35fqh9>

Fig.23. GAM, rendering of the proposed renovation of UNCTAD III, 2010; Photograph of the first stage of reconstruction, 2012

Conclusions: A Revolutionary Architecture?

There is no doubt that, in all its variations, modernism – as the cultural and political form of capitalism – opened up a potential role for art and architecture in the revolutionary transformation of bourgeois society – a role hardly conceivable until the late nineteenth century. Yet, this was no more than a possibility waiting to be realised. The political ambiguity towards capitalism and its new technological developments, especially within architecture, largely compromised such potentiality. This was far beyond a matter of architects' choice, for the force and reality of abstract space – engendered by the movement of capital and the centralised state – influenced architectural theory in unexpected ways. The most committed Marxist architects from the Constructivist to the *Neues Bauen* movements, for example, saw functionalism as the practical outcome of historical materialism: architecture would be determined solely by real life processes and no longer by the ruling class ideology. However, after the initial impetus the result was clear: far from challenging them, modernist architecture efficiently embodied the requirements of capitalism and its state apparatus. With the advent of global capitalism and its cultural counterpart, postmodernism, the revolutionary 'baby' was thrown out, as it were, with the totalitarian state 'bath water'. The potential of a revolutionary architectural practice was never resumed – with the exception of a few minor attempts. Notwithstanding the postmodern critique of modernism (within and outside architecture), what has remained intact during the postmodern era is, of course, the indulgent attitude towards capitalism. In the absence of any global political project that seriously challenges capitalist hegemony and its political forms (liberal democracy), architecture's once active challenge to the established social order has, at best, retreated into a reactionary phenomenologism, or diverted into the impotence of new forms of morality which resemble business 'ethics' ('eco-friendly' or 'responsible' building); and at its worst, it has willingly endorsed the new requirements of a multinational culture industry (under self-referential or theoretical pretexts), or fully surrendered to the dictates of real estate speculation.

Whichever the attempts at diagnosing the present situation might be, it should be clear by now that I have chosen to follow a rather different path in this analysis. Instead of directly addressing the current state of affairs, a critical distance has been created, which has allowed seeing the problem under consideration in new ways. This distance has been created both on the plane of theory and that of history. First, I have abstracted from the concrete and contingent relationship between architecture and capitalism to examine it in relative isolation – putting in brackets certain historical and geographical specificities. In a second movement, I have tested the theoretical conclusions by incorporating them into the complexities of a concrete historical reality (UNCTAD III). By going back to that conjunctural moment of capitalist crisis, restructuration, and corresponding social, political and cultural turmoil between the late 1960s and early 1970s, my aim was to locate, by

examining modernism's last breath, the actual foundations of current architecture's relation to capitalism. The task in these concluding thoughts, then, is to reassemble this totality (theory and history, abstract and concrete) in its movement, namely, to link back together the processes examined from the standpoint of *practice* – i.e. the concrete restrictions and possibilities of an antagonist architectural practice.

I will first summarise the main findings and theses put forward in the first and second parts of the research, now seen through the lens of the third part (case study). Then, I will conclude with an overall assessment and programmatic speculation on the theoretical and practical problems an architecture that wishes to challenge the current capitalist production of space would have to sort out.

I

The initial approach was characterised by an attempt to relate a phenomenological and biological theory of architecture to a materialist conception of the world. The aim was to establish the role of human activity (praxis) in the production of the human world (second nature) and, in particular, architecture. Although many efforts have been made to link Marxism and phenomenology in the past – especially with Heidegger and Merleau-Ponty – , this analysis focused on the 'architecture' inherent in the human body rather than wider transcendental or existential questions. The key issue was the human body's relation to nature in the abstract – i.e. as hypothetically isolated from social relations. Examined closely, nature revealed itself not as an absolute, not as autonomous, but rather as something being always already transformed by man. There is no original nature, only nature previously modified – to greater or lesser extent – by the human hand and seen through the human mind. Thus, the notion of *second nature* – the human world as our own 'natural' habitat – grasps the dialectical interplay between external and internal (human) nature, going 'beyond the idealist and materialist ontological interpretation of nature' (Lefebvre 2011, 142). What this brief analysis revealed is the illusory character of clear-cut distinctions between nature and society: there is only second (humanised) nature which is made out of first nature's matter. Misleading, idealist understandings of nature can easily lead to see architecture merely as the 'receptacle' of human life, just as nature supposedly is. Yet, our human world cannot be simply a 'medium', since it is not only a mediator between us and nature but between us and itself. In other words, it is both result and condition of the human activity which continuously transforms it in order to reproduce itself, and it cannot do otherwise. Therefore, the actual mediator and source of architecture is *productive activity* as such.

Seen from this perspective, the general problem and U3 appeared under a new light. The idealised, ontological view under which architecture stands between human beings and natural space (Van der Laan, Borchers) is expanded by one in which architecture mediates between human beings and second (or social) nature as well, and at the same time, between what is already there (past architecture) and what it could be (possible

architecture). Furthermore, since architecture is a product of social relations, this spatio-temporal relationship is one in which *organised social relations* are the actual intermediary between human beings and their objective world. Also, it is this collective action which intervenes between the already existent material and social conditions and possible or new conditions which this same action foreshadows. U3 was the product of an attempt to forge new social relations between Santiago and its inhabitants, a relationship in which working people could perceive the objective world of the city and its buildings as the shared product of their own labour, as a great collective work which no longer belonged to a class of private citizens or the state, but to the people who produced it.

It is precisely this awareness of architecture as a conscious creative activity, subject to discipline, what distinguishes it from the activity of building in general, and from natural forms. In order to understand architecture from the standpoint of the relations to second nature, a further distinction between *natural* and *artificial* was necessary. Within the realm of architecture this difference is far from self-evident, and it relies more in their constitutive character than the source from which they supposedly emanate. Marx also used the term second nature to refer to the human world as 'naturalised', treated as an external absolute over which men have no control. Broadening Van der Laan's distinction between the natural and artificial orders, Borchers included so called 'everyday', vernacular, or 'popular' architecture, which develops spontaneously, within the *natural order*, and he distinguished it from architecture as the result of systematised theoretical thought which belongs to an *artificial order*. Architecture conceived as a major art breaks from the outset from the determinism of *natural laws* (human or otherwise). It follows then, that *transforming* the world (as second nature), in the sense of breaking with its 'natural' or 'blind' development rather than instinctively *reproducing* it, would be an intrinsic feature of architecture thus conceived. Again, U3 can be seen as an example of this. The people involved in its planning and construction were fully aware of the role of the building and the conference in the radical break from the established (bourgeois) planning of the city.

At this point, and having drawn initial conclusions on an abstract basis, I was compelled to integrate the universal or purely theoretical understanding of the relation between man and nature into a social – and progressively historical – understanding of human activity. In order to do this I developed the distinction between the natural and artificial orders into that between *things* (external sensory qualities) and *objects* (internal schemes of action) which together form what Uexküll called the *functional circle* of the human body. Alongside these, I introduced Marx's dialectics of *use* and *exchange*. The first distinction appeals to the dual character of the human body as being simultaneously a *passive* and *active* transmitter of energy (Lefebvre 1991, 178). The second, to the concrete and abstract character of commodities. A further distinction made by Marx was that between *exchange-value* (exchange ratio between commodities) and *value* (abstract labour). Following Uexküll and Van der Laan, Borchers postulated objects as the substance of architecture. For his part, Marx posed value as the substance of commodities. The aim was to establish the intrinsic relation between (architectural) objects and (social) values. The common concept that links them is labour-time, and its architectural counterpart, *human acts*. As defined by

Borchers, *acts* are 'crystallised' actions (e.g. doorway, corridor, etc); whereas in relation to value, *acts* are the social structure which regulates actions (e.g. ritualised actions, labour, sports, dance, etc). Under this framework, U3 was analysed as thing and object, as a use-value and exchange-value. The question at this point was: which features of the building are intrinsic to its architecture and which aren't? To answer this I sought to analyse it as the outcome of a *concrete social practice* and, at the same time, as an *ideological representation*.

By restoring the central role of the human body – its perception, movement and its social practice – I have asserted a materialist (social) conception of architecture which allowed effectively criticising and dispelling dominant idealist approaches. If architecture is understood not as primarily the product of so-called 'architectural concepts', ideologies or even the 'prevalent' *zeitgeist*, but rather as the outcome and means of a social practice, the problem of its role within capitalism and against it appears in a different way. Thus, instead of concentrating the efforts on ideological analyses – certainly necessary but which abound among architectural theorists – I decided to focus on the material practices upon which these debates are constructed in the first place. Consequently, the first step in the inquiry was the analysis of space and architecture understood as social products, not passive mediums or mere 'reflections' of society. I established their roles as *means of production* and *subsistence*, and as '*objective*' *ideology*, namely, the fetish character they assume under capitalism, and which is precisely what assures its instrumental use by political power.

A complex question emerged out of these reflections: what sort of architecture has the capitalist mode of production engendered and how? The first part of the problem needed to be addressed in an abstract way in order to introduce the key concept of *capital*. If the production of *value* (including architecture) is what characterises simple commodity production in pre-capitalist societies, the production of *surplus-value* is what defines the capitalist mode of production. How is this surplus produced? Where does profit come from? Marx came to the conclusion that only a commodity called *labour-power* had the capacity to produce more value than it costs – i.e. *variable capital*. The precondition for transforming human labour into a commodity was the dispossession of direct producers from access to *means of production (constant capital)* and subsistence by a raising new social class, the bourgeoisie – a process known as *primitive accumulation*. A radical shift in property relations was initiated, one in which the so-called 'right to private property' secured and legitimised the claim of the 'new owners' to exploit a labour force in order to accumulate surplus-value as an end in itself. The process by which the owner of these means buys labour-power and puts it to work to produce fresh commodities which he then sells for the original money plus a profit defines the concept of *capital*. Therefore, if capital is a process in which the value contained in commodities continuously changes its form in order to expand itself – from money to commodities and back to more money –, then, as soon as architecture steps into this circuit as means of production (a factory or office building, for instance) it turns itself into capital – as *constant capital*, or more specifically, *fixed capital*.

The outcome of this historical process was the progressive abstraction of concrete labour activities into that undifferentiated wealth-creating activity called *abstract labour*. Once measured as the average labour-time to produce a given commodity, abstract labour forms the substance of the value of that commodity, which is finally expressed in its exchange-value and price. According to Lefebvre, this process could not have taken place without the integration of architecture, and space in its entirety, into the circuit of capital. As a result, they have been turned into *real abstractions*: apparently autonomous fetishes (like money and capital) that inflict a simultaneously homogenising and fragmenting tendency which is socially real. *Abstract space* was born out of the violence and 'creative destruction' of primitive accumulation and the establishment of the modern state. Essential to this was also the increasing role of urbanisation in the expansion of markets, eventually reaching the whole globe.

During the late nineteenth century and the early twentieth century, art and architectural theorists began to formulate the concept of modern space, which was nothing more than a reflection in theory of an already developing social reality. This move corresponded to the instrumentalisation of analytical knowledge by bourgeois thought in order to facilitate the practical and strategic implementation of abstract space – either by the state or private enterprises. Architecture was progressively turned into a problem of 'economy and convenience' (Durand) and eventually fully adopted the jargon and methods of large scale industry (scientific management, functionalism, and so on). Paradoxically, the Bauhaus, Constructivists and related architects saw themselves as leading an anti-bourgeois revolution in art, design and architecture. It is true that they radically changed the way in which art and architecture related to society, and thus they inevitably opened the way for a revolutionary practice within the cultural realm. Yet, their calls to architects 'to open their eyes' to industrial society and its new technical developments (Le Corbusier) contained an ambiguous message which summed their positivist stance. More radical or openly Marxists architects embraced a deterministic and equally positivist attitude in their merging of materialism and functionalism. Others variants of modernism such as futurism, expressionism, and neoplasticism remained within a formalist-aestheticist approach devoid of, or indifferent to, social issues.

U3's architects were heavily influenced (even directly) by these theories, and incorporated them into their design through two main features: total or integral design, and the search for the new – both of which were closely associated with the idea of the production of space. The abstract conception of space was tempered by a local approach resulting from the pre-revolutionary unfolding of new social relations in the realm of production and culture. As an architectural object (and set of objects) and as the outcome and condition for a new social practice, U3 intrinsic features – such as its free plan, independent structure, or its openness towards the city – did not manage to break with the capitalist production of space in any substantial way. Yet, its process of production and design undoubtedly challenged prevailing methods at the time, both in architecture and the organisation of the labour process.

II

After having analysed the relations between the development of abstract space and the emergence of modernist architecture, the political nature of the work of architecture had to be specified. Is architecture political? The answer is yes but subject to very specific definitions. The distinction between *the political* and *politics* was developed in connection with that between *project* and *design*, which also corresponds to the previous categorisation of *objects* (internal properties) and *things* (external properties). A path was identified in which the structural or *formal* nature of the political within architecture was acknowledged. As the result of a political practice in the broadest of senses, architecture is then intrinsically political, which is not the same as saying that it is political 'in itself'. The political dimension of architecture lies in the structuring of the mode of relation it establishes between human beings and between them and their environment. It follows, that the political use or interpretation of architecture are merely external or *contingent* features which cannot constitute its intrinsic political dimension. As I confronted the views of Jameson and Tafuri it became clear that the initial question had to be reformulated from the standpoint of architectural practice rather than its outcome. This new approach allowed us to confront the difficult question of the architect's political action. While confronting Tafuri's extreme immobilising position I asserted the notion that political action within architecture must first occur at the level of its production methods and must transcend the limits of the discipline itself. U3 was examined from the standpoint of these hypotheses, and I concluded that despite the building's explicit and changing political meaning throughout its lifespan, its intrinsic political dimension as an architectural object remained virtually unmodified until it was destroyed by the 2006 fire. As an exercise in historical and political amnesia, its reconstruction assured that its intrinsic dimension as an object – and set of objects – was shattered or modified to the point of being unrecognisable.

III

In summation, this research has theoretically examined the relations between architecture and capitalism in order to realistically confront the question of its political role in the struggle for the transformation of this mode of production. Clearly, this task cannot be entrusted to architecture itself as modernists thought, but must be understood only as a small (collaborative) contribution to a larger collective project for the emancipation of the working class from the blind and abstract domination of capital, as well as the radical transformation of its institutions – most notably private property and the state. Surely, the ultimate aim, as Lefebvre believed, was the transformation of everyday life in all its aspects. Yet, easy ways out to this dilemma usually fall into undialectical or crude forms of utopianism. These manifest either as self-referential formal experimentation without any political content (or a forced and *a posteriori* one), or as reactionary calls to return to a more 'humane' and phenomenological architecture that would by itself achieve change

without contaminating or associating with external social practices. The illusory and self-enclosed nature of these and other variations calls not only for a critical analysis of architecture's place and role within the capitalist production of space, but more importantly for the rethinking of its practice and methods. In short, what remains to be done is working towards a *programme of architecture* which could address, in a unitary manner (as a set of fundamental theoretical propositions) its contents, aims, and methods. Due to strategic reasons explained elsewhere, this research consisted only in a small part of the critical analysis needed, which focused mainly in the problems faced by modernist architecture. Further analysis requires confronting the new problems which postmodernism – as the cultural superstructure of global capitalism – poses to architectural practice. Hopefully the example of UNCTAD III and the experience of the workers, artists, architects and engineers that made it possible can be a valuable proof of the revolutionary potential of architectural practice to modestly contribute to the transformation and re-appropriation of social space.

Notes

INTRODUCTION

¹ I have additionally participated in the translation from Spanish to English of '*275 días: Sitio, Tiempo, Contexto y Afecciones Específicas*' (275 days: Site, Time, Context, and Specific Affections), a curatorial project which recovers most of UNCTAD III's integrated artwork missed during the dictatorship; see (Varas and Llano 2011, 5).

² Third United Nations Conference on Trade and Development (UNCTAD III) held in Santiago de Chile, from 13th April to 21st May 1972.

³ The title of these chapters is a reference to Marx's comments on Hegel's conception of history. Marx suggested not that historical events repeat themselves ('first as tragedy, then as farce') but that the new is constantly haunted by the old, built upon its established material conditions, which are inevitably re-enacted and parodied in any emergent circumstances: 'men make their own history, but they do not make it as they please (...) The tradition of all dead generations weighs like a nightmare on the brains of the living' (see Marx, 1937, 5).

1 THE RELATIONS TO NATURE

¹ In reference to Hegel's concept of nature, see: Alfred Schmidt, *El concepto de naturaleza en Marx* (Madrid: Siglo XXI de España, 1977), 38. Translated from Spanish to English for academic purposes by Patricio De Stefani, 2012.

² I'm not speaking here in historical terms, but just highlighting the fact that external nature (the earth) in no way needs the human species to evolve, though this could be rightly questioned by confronting it with current climate change issues.

³ 'Organic beings grow by intussusception, the inorganic ones by juxtaposition' (Borchers 1975, 29).

⁴ See Marx's critique of Bruno Bauer (Marx and Engels 1968, 75).

⁵ '(...) all that a subject perceives becomes his perceptual world and all that he does his effector world. Perceptual and effector worlds together form a close unit, the *Umwelt*' (Uexküll 1957, 6).

⁶ See the concepts of *thrownness* and *Being-in-the-world*, see (Heidegger 2001, 174).

⁷ 'The elementary factors of the labour-process are 1, the personal activity of man, i.e., work itself, 2, the subject of that work, and 3, its instruments' (Marx 2011).

⁸ 'Matter as such is a pure creation of thought and an abstraction. We dispense with the qualitative differences of things when we gather them under the concept of matter as corporeally existent.' Friedrich Engels, quoted by Schmidt (1977, 30).

2 THE ARTIFICIAL ORDER

¹ For the changing relations between the natural and the artificial see (Bensaude-Vincent and Newman 2007). Furthermore the concept of second nature, for example, seems to merge the natural and the artificial into one environment, see (Smith 2008, 380-82).

² I'm referring to the laws of nature as the 'objective orders or regularities in the natural world, which are independent of human minds and discovered by scientific investigation', not to be confused with the

concept of natural law in ethics, nor with physical or scientific laws, see: Nicholas Bunnin and Jiyuan Yu, *The Blackwell Dictionary of Western Philosophy* (Oxford: Blackwell Publishing, 2004), 380.

³ On the economic field, one of the key exponents of the subjective theory of value was the Austrian School of economics, in particular see (Böhm-Bawerk 1930).

⁴ In other editions of *Capital* the German term 'gespenstige gegenständlichkeit' is translated as 'phantom-like objectivity' which perhaps describes more accurately the nature of the notion of value, see (Marx 1990, 128).

3 THE ARCHITECTURE OF ACTS AND THE ABSTRACTION OF LABOUR

¹ This title is taken from Section 3, Chapter 3 of Jorge de la Cruz's Master dissertation (De la Cruz 2000, 148).

² '[In] The labour-process, resolved as above into its simple elementary factors (...) was, therefore, not necessary to represent our labourer in connexion with other labourers; man and his labour on one side, Nature and its materials on the other, sufficed.' (Marx 2011, 205)

³ It must be kept in mind that Borchers uses a specific definition of *will* taken mostly from Schopenhauer and his critique of the causality between *will* and *action*, which he claimed were one and the same thing. See: (Cartwright 2005, 181-182; 15-17), and (Schopenhauer 1969, 100).

⁴ For the origins and development of this concept see (Marx 1955, 16ff; 1959, 611-21).

4 THE SOCIAL PRODUCTION OF ARCHITECTURE

¹ A distinction should be made between superstructure and ideology. The term 'ideological superstructure' emerged from Engels and the first generation of Marxists following Marx's death, and refers to the totality of forms of social consciousness (see Larraín 2001, 249-250). On the contrary, in Marx the concept of ideology has a more restrictive and negative meaning. I will focus first on this specific meaning, mostly in its connection with the superstructure. Several critiques have followed later interpretations of the original Marxian usage. I will give full account of these and its relation to architecture on the subsequent chapter.

² I will discuss this concept in more detail in Chapter 5.

³ The turnover time of capital is the time of production plus the time of circulation, see (Harvey 1985, 36; Marx 1956, 90).

⁴ This is Marx's expansion of his initial model of the capitalist mode of production (capital-labour) to include a third element, land. The trinity formula comprehends land, capital, and labour. In money form: rent, profit, and wages. In class form: landowners, bourgeoisie, and proletariat. See (Marx 1959, 568-570).

⁵ 'The emancipation of the working class must be the act of the workers themselves' (Marx 1970, 12).

5 REAL ABSTRACTION: ARCHITECTURE AS CAPITAL

¹ While acknowledging the limitations, for example, of Marxian political economy applied to spatial issues, I have explained the reasons for nonetheless using such framework for our current analysis, see: (Literature review, 20)

² Simple circulation is defined by the following circuit: selling a commodity in exchange for money (C-M) and then use that money in order to buy another commodity (M-C) (Marx 2011, 119).

³ The circulation of money as capital is defined by the following circuit: buying a commodity with money (M-C) and then sell that commodity in exchange for the original money plus an increment (C-M') (Marx 2011, 164).

⁴ It should be borne in mind that Marx distinguishes between the full value of the means of production, say a new machine, and the value that is actually consumed during the labour-process.... fractions

⁵ I have briefly commented this central hypothesis in the previous Chapter 4 (64): '(social) space is a (social) product' (Lefebvre 1991, 26).

⁶ Shields' critique is only meaningful if we are prepared to dismiss Marx's historical materialism altogether on the grounds of the impossibility of the concept of totality within history.

⁷ 'The method for approaching spatial problems cannot consist of one formal method, logical or logistical; it can only be, and must be, a dialectical method that analyzes the contradictions of space in society and social practice' (Lefebvre 2009, 172).

⁸ I have reviewed these early theories of space and their influence in modern architectural theory, see (De Stefani 2009)

⁹ For a further critique to this concept of space from within the architectural discipline see (Morales 1969; Suárez 1986; Borchers 1968)

¹⁰ This circuit should not be confused with those examined by Marx in Part I of Volume II of *Capital* (money capital, commodity-capital, and productive capital circuits).

6 THE FORMAL: ARCHITECTURE AS POLITICAL MEDIATION

¹ Mouffe contrasts this definition with that of liberal theorists who see the political as an individualist-rational realm of free discussion and deliberation, devoid from any constituent exclusion, or antagonistic relationship. See (Mouffe, 2005, 9).

7 1971, UTOPIA: INDUSTRY, MODERNISM AND CLASS STRUGGLE IN THE CHILEAN ROAD TO SOCIALISM

* Stone plate inscription by sculptor Samuel Román, written by UNCTAD III's architect Sergio González.

¹ The third conference was held in Santiago de Chile, from April 13th to May 21th, 1972. It pursued, among other things, 'the promotion of economic progress in the developing countries by means of an extensive development of world trade that would be equitable and advantageous to all countries' (UNCTAD 1973, 1).

² Salvador Allende was president of Chile from September 4, 1970 until his overthrown by a coup d'état on September 11, 1973.

³ CORMU or *Urban Improvement Corporation* was an organism created in 1966 to plan and execute projects of urban renovation along modernist ideas.

⁴ Housing Corporation created in 1952 by President Carlos Ibáñez del Campo.

⁵ Ministry of the Chilean State created in 1965 by President Eduardo Frei Montalva for the planning and development of housing and urbanisation projects.

⁶ I refer to deterministic and mechanical approaches to historical materialism and the identification of the primacy of productive forces with economicism, for example in Kautsky and Plekhanov. See (Harman 1998, 9-11) and (Lefebvre 1991, 72, 322, 410).

⁷ I use this term instead of 'society' to distinguish an historical from a theoretical approach to political economy, see (Harnecker 1971, 19-24).

⁸ This model advocates replacing foreign imports for national products as a way to encourage industrial development in third world countries.

⁹ Developmentalism was a loosely defined set of theories which emerged after the Second World War from modernization theory and structuralist economics, and which attempted to theorise economic and political strategies for developing countries to achieve development through their national industries. See (Rist 2008, 109-122).

¹⁰ Dependency theories (developed in Latin American) had several points in common with Marxist theories of imperialism and uneven and combined development (Lenin, Luxemburg, Trotsky). See (Hettne 2001).

¹¹ For an extended and critical take on these concepts, see (Rist 2008).

¹² The *United Nations Economic Commission for Latin America and the Caribbean* (CEPAL or ECLAC in English) was established in 1948 with headquarters in Santiago de Chile; and the *United Nations Conference on Trade and Development* (UNCTAD) was established in 1964 in Geneva, Switzerland.

¹³ Production Development Corporation, founded in 1939 by President Pedro Aguirre Cerda.

¹⁴ Mainly consequence of the high percentage of poor and low income population (Vitale 1998, 207).

¹⁵ According to Vitale, this 'aid plan' was aimed at counteracting the ideological impact of the recent Cuban Revolution in Latin American countries. See (Vitale 2000, 13).

¹⁶ This term was used to differentiate it from a complete nationalisation of copper mines.

¹⁷ Land reform designed to expropriate the landed property from *latifundistas* (landowners) and redistribute it among the peasantry, putting an end to 'colonial-feudal' property relations.

¹⁸ This concept refers to the proportion between constant capital (means of production) and variable capital (labour power) within the production process; see (Marx 2011, 671).

¹⁹ The Popular Unity followed FRAP (Popular Action Front) a coalition of left-wing parties which existed from 1956 to 1969. Popular Unity was comprised by the Socialist Party, Communist Party, Radical Party, Radical Left Party, MAPU (Popular Unitary Action Movement), and Christian Left Party. The coalition was formed in December 1969, and through internal elections designated Salvador Allende as its presidential candidate for the 1970 elections.

²⁰ Since Allende obtained the relative majority of votes (36.3%), it was required to be ratified by the Congress. DC conditioned its support on the signing of the *Statute of Constitutional Guarantees* which established the autonomy of the Armed Forces (never before allowed in the Chilean Constitution), the media and education with respect to the State. Later on this document would play a crucial role in the actions of the Armed Forces (Harnecker 1998, 34).

²¹ The *Social Property Area* of the economy was one of the most important measures of the Programme of Popular Unity. It consisted in the socialisation of key industries hitherto controlled by national and transnational monopolies. These industries would be under the democratic control of workers and government representatives. The area was seen as a key for building a planned socialist economy in contrast to State capitalism bureaucracy. See (Allende 2008).

²² General Roberto Viaux planned the failed abduction and resulting assassination of General René Schneider (who was considered loyal to the constitution) on October 25, 1970, to provoke the mobilisation of the armed forces and so to prevent Allende from taking office. The operation was financed and promoted by the CIA in coordination with the US National Security Advisor, Henry Kissinger, in what became to be known as operation 'Track II' or 'Project FUBELT': 'The option of a military coup was played from day one Allende triumphed' (Vitale 2000, 45-48). See also (Uribe 1974).

²³ Just one week after Allende won the elections, Frei's Minister of Finance, Andrés Zaldívar, announced the economy was being destroyed due to massive bank run as a reaction to elections results. The major right-wing newspaper, *El Mercurio*, published a photomontage of Russian tanks entering *La Moneda* presidential palace, saying that Chile would follow the path of Czechoslovakia, and even that Chilean children would be taken to Russia. See (Vitale 2000, 41, 42).

²⁴ *Dependencia* or dependency theory was developed during the 1960s and 1970s as a synthesis of American Marxism (Baran, Frank, Sweezy), Latin American Marxism (Marini, Dos Santos), and Latin American economic structuralism (Prebisch – UNCTAD secretary-general –, Furtado, Pinto, Cardoso, Faletto). See (Hettne 2001; Kay 2001).

²⁵ Allende was referring specifically to the collapse of the Breton-Woods system during 1971.

²⁶ 'We lost too much in those last months of the Popular Unity, because we couldn't sleep waiting for the coup, and if you cannot sleep you cannot dream, and I mean that literally, you cannot dream the future of a country, the future of a city' (Stuven 2007).

²⁷ DINAC (National Bureau of Supply and Marketing) and JAP (Committees of Supplies and Prices).

²⁸ Industrial belts or *Cordones Industriales* were a form of workers organisation, democracy, and popular power under which several factories or companies were grouped along a common street or area of the city. Their initial intention was the democratisation of the workplace, but soon it became a front to combat strikes organised by the company owners to boycott the government. They were independent from Trade Unions and the State. See (Silva 1998; Gaudichaud 2004).

²⁹ 'The future of the Chilean Revolution is, more than ever, in the hands of those who work. Is up to you that we win the great battle of production' (Allende 2008, 248).

8 1973, TRAGEDY: THE NEOLIBERAL UTOPIA AND THE ROAD TO POSTMODERNISM

¹ On the military radio recording of the bombing Pinochet can be heard giving the order to 'keep the fire burning as long as possible'.

² Diego Portales was a conservative Chilean statesman and controversial figure during the nineteenth century due to his authoritarian and repressive measures against its political detractors.

³ For example, the conference hall's door handles (a copper bas-relief piece by artist Ricardo Meza which depicted two workers' fists) were turned upside down (see Fig. 14 and Fig. 17).

⁴ This is the title of the Swiss documentary "*Chili: ordre, travail, obéissance*", which synthesizes the ideological framework of the Junta and the bourgeoisie. Switzerland, 1977, color, 64 min. Director: André Gazut.

⁵ This view has been disputed as 'political determinism' (Kliman 2012, 50).

⁶ Housing and Urbanisation Service.

9 2010, FARCE: GAM AND THE FLATTENING OF HISTORY AS SPECTACLE

¹ This concept is developed by Lefebvre (1978, 123-139) and Harvey (2012, 3-25).

² Traditional celebration in which, during the construction of the roof beams, the builder or owner offers lunch to all workers.

³ For instance, Archigram, Archizoom, Superstudio, Cedric Price, and the Metabolist Group.

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