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An individualism without individuals. A sociological approach to the capitalist symbolism of Chicago and New York skyscrapers

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Abstract

Starting from Comprehensive or Interpretive Sociology and the Sociology of skyscrapers, this article proposes as basic objectives to verify how the North American economic culture is showed in the symbolism of the skyscrapers of Chicago and New York and to verify the parallelism between the formal evolution of these buildings and the main economic transformations that have occurred in North American society in recent decades. In short, we will try to highlight the following symbolic questions: if the skyscrapers of Chicago and New York represent the defense of an American business culture marked by strong competitiveness and individualism; if they express the aesthetic transition from a capitalist rationalist architecture to another aesthetic where fiction, fantasy and spectacularity prevail; if this process is in tune with the transformation from an industrial capitalism to another of consumption and if it manifests itself through the decline of rationalist structural architectural elements towards others marked by glass, lightness, fluidity, liquidity and commodification; if the individualism that characterizes North American capitalism has also mutated in recent decades, that is, if from a primitive exaltation of autonomy as a core value of society, it drifts towards the cult of an individualized, privatized self disconnected from public space. Ultimately, it is about confirming the sociological utility of skyscrapers, understood as symbolic, economic, social and cultural objects.

Introduction

Objectives

This article has two basic objectives: (1) to evaluate how American economic culture is objectified in the symbolism of skyscrapers in Chicago and New York and, (2), to assess the parallelism between the evolution of the form of skyscrapers in these cities and the major economic transformations that have occurred over the last decades in American society.

Theoretical and methodological basis

In order to achieve these objectives, we essentially start from Comprehensive or Interpretive Sociology and the Sociology of skyscrapers. As for the former, the orientation is basically Weberian (Weber 2006: 13, 43–4

and 172; González García 1992: 37, 1998: 208), whose perspective considers the social world and the relations it generates as full of meaning. Meaning constitutes the data with which the sociologist works, and which allows him, through the concepts of “correspondence in meaning” or “elective affinities”, to find the common links of the different cognitive dimensions—esthetic, economic, cultural and social—that modernity has fragmented and, in this way, to recompose the meaning, the contemporary North American “worldview” (Muñoz 2001: 23).

In this sense, it is worth recalling that Weber defended the relations between the world of ideas and economic facts, or in other words the “affinity” of these with capitalism, highlighting, specifically, the “reciprocal influences” between religious ideas and economic behavior (Weber 2012: 11–15). Furthermore, he pointed out that rationalism is an essential element

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in these influences and that “Not only economics, but the whole of modern Western culture is permeated by a specific rationalism” (Schluchter 1991: 102–103). Thus, in *Protestant Ethics and the Spirit of Capitalism*, in *Sociology of Religion* and in *Economy and Society*, he established the “elective affinities” between economic, religious, and political rationality, as well as that of the arts, classical music, the city and architecture (Weber 2005: 11–15, 1979: 5–7; Weber 2012: 23; Ritzer and Requena 1993: 276–286).

Along these lines, what we will try here is to find out the “affinity” of urbanism and skyscrapers in Chicago and New York with the economy and, more specifically, whether there are “correspondences of meaning” between economic “individualization” and that of cities and skyscrapers, as there are between “industrialization” or “consumption”, between “solid” and “liquid” or “evanescent capitalism” and the urbanism and architecture of skyscrapers. But it is important to keep in mind that the correspondence of these concepts and metaphors are made by the skyscrapers, transferring them to an architectural language and putting images to words (Sennett 2019: 119). The same thing happened, according to Weber, with the existing affinity between “classical musical harmony” and religious, economic and political rationalism, said harmony being a purely musical concept.

In this respect, we will try to find the general correspondences between skyscrapers, contemporary American society, culture, and economy.

More precisely, the aim is to find the deep keys to high-rise buildings, i.e., to unveil their inner meaning from the external ideological discourse (Grondin 2014: 10–1 and 43–107). For this reason, its object is an image that is never autonomous, as it is contextualised (Beltrán Villalba 2016: 3–4), and it is precisely this contextualisation that is the key for a sociologist.

However, Weberian sociological theory is complemented by the incipient Sociology of Skyscrapers. Emerging because, at the beginning, Sociology—and particularly Urban Sociology—did not deal with buildings (Abbot 2000: 62; Tryggstad and Georg 2011: 182; Vergara Vidal 2017: 4–5), with their material and formal aspects, but rather focused on the interactions that took place within urban and architectural forms. Recently, however, the focus has shifted towards urban phenomena, considering buildings as objects of sociological study. This change has taken place in three successive phases: an early phase, a phase of development, consolidation, and crisis of the sub-discipline of Urban Sociology and, finally, a phase of emergence and establishment of space as an object of study, both in terms of cities and their artefacts. In these

stages, as many types of development have unfolded, as space and building have been considered as a good, as a territory or as a technique and, at the same time, as a “place” or as an “object” (Vergara Vidal 2017: 4–5).

Among the sociological antecedents that deal indirectly with the subject is Durkheim, who alludes to the fact that “material things play an essential role in common life” and that “a certain type of architecture constitutes a social phenomenon” (Durkheim 2004: 427). Weber also announces that the morphology of the space of buildings—and the layout of cities—could affect the actions of individuals (Weber 2005: 966). Mead, for his part, speaks (1934) of the symbolic importance of material buildings (Abbott 2000: 62). Halbwachs, after his visit to Chicago, produces a considerable advance in the study of the city space, highlighting the rapidity of urban formation, as well as the conversion of population density into the axis of the morphological structure of the city (Vergara Vidal 2017: 8). Furthermore, in *La Memoria colectiva* (Halbwachs 2011: 185 ff), he addresses, for the first time, the materiality, buildings, and places of cities from the perspective of their spatial, symbolic and memory value for their inhabitants.

However, the one who will make “the spatial turn”, who will finally shift the object of study from urban communities to space itself, will be Lefebvre, who will define it as a “social relation” (Lefebvre 1971: 2013). Indeed, for him, the “building” fulfils a syntagmatic function, since, from his perspective, it constitutes “architectonics of space”, that is, a form of organization of social space associated with a function (Lefebvre 2013: 265–269). In short, Lefebvre’s great contribution consists in “having displaced human actors (communities) from the center of the analysis and having put in their place a social relation, a non-human actor, a technical form” (Vergara Vidal 2017: 10).

Therefore, Sociology’s treatment of skyscrapers has to do with the turn taken by Lefebvre, and it is no coincidence that, since then, there has been a growing number of studies that analyze them as a sociological object, albeit from non-canonical and highly differentiated points of view. One of these influential studies is that of Jameson (1984), who analyses the atriums of the hotels of the skyscraper architect Portman, considering, from an interdisciplinary point of view, urban space, the building as form, the environment of the constructions, the connection between culture and politics as well as the economic determinism of the constructions, particularly of the economic structures (Zukin 1988: 432). In this respect, as will be seen, the abstract space of urbanism and skyscraper architecture will be linked to its commodification (De Stefani, n.d.), in the sense given by Marx in the fetishization of the

commodity and taken up by Lefebvre (2013: 70, 101 and 102) and, through him, by Jameson. Thus, both the North American urban space and the postmodern skyscrapers will be considered as “products”, as “commodities”.

We are also particularly interested in the approach of comprehensive sociology, which contributes to the recognition of the formative capacity of space in social life, which conceives the city—and skyscrapers—as a form resulting from social relations and which focuses its attention on the cultural dimension (Ramírez-Ibarra 2015: 123–125).

To this we add, in this research, the general contributions of our discipline alluded to above, since we will argue here that the verticalization of North American cities is of special sociological interest that goes beyond economic reasons and its technical potential (Eichner and Ivanova 2018: 1). Thus, skyscrapers will be understood as a comprehensive form, as a sociological object, as a syntagm—Lefebvre—that relates them to the socio-cultural-economic context—Beltrán, to the urban space, to the institutional logics turned into “guiding principles of society” that “guide social action” (Greenwood et al. 2010: 521) and, therefore, with the individual and collective social agents—architects, municipal and state economic and political drivers—who are behind their construction and use—Weber. Without forgetting that they are also a social phenomenon—Durkheim, a material, technical and symbolic object (Parker 2002: 1; Tryggestad and Georg 2011: 195; Eichner and Ivanova 2018: 2 and 5), which transforms “space” into a “place” full of meaning and memory—Halbwachs, and of its allied temporal vision (Parker 2002: 2). Space and time together shape social life, in such a way that society’s way of organizing itself temporally cannot be separated from the dynamics of space (Abbott 2000: 62).

Therefore, we will link the architectural, material and technical aspects of skyscrapers, together with the sociological (Vergara Vidal 2017: 1 and 14), cultural—Comprehensive Sociology-, economic—Jameson, technological, architectural, aesthetic and symbolic—Mead, Halbwachs. In this regard, high-rise buildings, like any product of culture, have a significant nature or structure (Jang 2012: 9), mediated materially (Tryggestad and Georg 2011: 181 and 195) and culturally, as far as this significance is granted, fundamentally, by their symbolic values. Anthropology understands the symbol as an abstract representation embodied in something concrete that links something absent with something perceptible (Durand 1971: 14–15). Moreover, the symbol acts as an intermediary between the human being and the world and from this emanates the constitution of a symbolic universe (Cassirer 1975: 25–27). However, much emphasis has been placed on delimiting the semantics of the symbol by means

of linguistic codification, the open, flexible and polysemic nature of the symbol has resisted it (Durand 1971: 55–67). Thus, the hermeneutics that reveals the meaning of creativity emphasizes symbolism, what the symbolic image betrays (Ricoeur 1982: 489 ff.). Thus, the symbolism of skyscrapers allows their forms to be imprinted on the raw material of physical space, but to clothe it in a symbolic imagery through which modern society—American society, in this case—recognizes its memory and identity. In fact, they express a narrative with which the city thinks and legitimizes itself and which influences the everyday practices and actions of its citizens (Castells 2014: 256–262), be they economic, technological, cultural, social, aesthetic or ideological.

As the following pages will show, this is precisely what happens with skyscrapers in Chicago and New York.

Finally, we consider it appropriate to highlight a methodological note, which has to do with the criteria for the selection of skyscrapers, which we have obtained from a large amount of academic literature, particularly architectural literature, from on-site observation of skyscrapers and from various online pages. In this regard, it should be noted that, since there is no official—at least to our knowledge—institutional list of skyscrapers, it is essential to use the data provided by the Internet in a varied list of websites. Although the information provided is incomplete, it nevertheless gives an approximate and contrasted picture of the reality of these typical constructions. www.Skycrapers.com, for example, although it leaves out some of the cities, especially those with few skyscrapers, indicates that there are 65,632 skyscrapers in the world and distributes them among the different countries and cities. www.skyscraperspicture.com for its part, displays 2,500 images of buildings in 57 cities and 17 countries. In addition, there are many other websites offering useful information throughout this article: <http://www.geocities.com/angelluisc/Newyork.htm>; <http://www.geocities.com/angelluisc/empire.htm>; <http://www.geocities.com/angelluisc/grace.htm>; <http://www.epdlp.com/rascacielos.htm>; <http://usuarios.lycos.es/rascacielos/madrid.htm>; www.skyscraperspicture.com; and www.skyscraperpage.com.

On the other hand, the skyscrapers selected were intended to be representative and significant of the buildings constructed in North American cities as a whole.

In fact, some of these skyscrapers are considered by architectural critics to be the most important models of high-rise buildings in North America and even the world. For example, in addition to the classic, the *Aqua Tower* was named “Skyscraper of the Year 2009” at the *Emporis Skyscraper Award* and was a finalist for the biennial *International Highrise Award* in 2010. *Two Prudential*

Plaza won the “Illinois Structural Engineers Association’s Best Structure Award” in 1995 (Terranova 2003: 174–179), Norman Foster’s *Hearts Tower* achieved the award in 2013, and Gehry’s *8 Spruce Street* (formerly *Beekman Tower*) won the “Emporis Skyscrapers Award” in 2011.

But this is so because of their size, their design, the advanced technology they use and the strong symbolic significance they represent. The other skyscrapers selected are also representative of the modernization of the country and the evolution of capitalism and society itself. On the other hand, all the skyscrapers chosen have been analyzed in the academic literature (*History of Architecture, American Architecture*) as highly representative and significant of the evolution of modern American construction.

The symbolic context of the US economy From rationalist and solid to consumer, liquid, or evanescent capitalism

United States of America has placed the economy at the center of the social and prevented the previous religious curbing of the profit motive (Polanyi 1989: 83–101), so that society has been shaped by the conflict between different economic interests (Luhmann 2009: 77–80). In fact, already at the beginning of this society, progress was directed towards economic profitability and competitiveness, with the support of the ascetic, *intramundane* Calvinist *ethos* based on discipline, sobriety and industriousness, i.e., when economic rationality was subordinated to a religious-moral end (Weber 1979: 41–105). This phase of capitalism, founded on reason and presided over by rational instrumental calculation or rational-legal domination based on rules established according to a rational procedure and through an administrative-bureaucratic apparatus (Weber 2006: 23–66, 2007: 22 ff.), as well as by methodism and the rationalization of conduct—cardinal virtues—forged a bourgeois paradigm of social personality, a *Zeitgeist*. Not to mention that this economic rationalism is deeply linked to scientific and technological development, since there has always been a connection between scientific pioneers and the beginnings of capitalist enterprise (Heilbroner and Milberg 1999: 75ff; Noble 1999: 79).

Consequently, capitalism is based on an economic-technological rationality and, simultaneously, on a *spiritual* condition, on a sharpening of certain psychic faculties that respond to a particular moral worldview (Sombart 1979: 13–16).

However, this worldview has been evolving since 1970 and especially since 1990, when a new capitalist spirit seems to prevail, characterized by, among others, the following aspects: (a) globalization, externalization and extraterritoriality; (b) individualism and competitiveness;

(c) speculative, connectionist and networked nature; (d) virtuality, flexibility, lightness, fluidity, rootlessness, randomness, chaos, instability, nomadism and mobility; (e) invisibility; and (f) finally, the decline of hierarchy and the lack of tangible signs of power (Boltanski and Chapiello 2002: 146ff. Heilbroner and Milberg 1999: 8–154; Rifkin 2000: 14ff; Debord 2003: 132–3; Sánchez Capdequí 2004: 300; and Sennett 2006: 42).

As a result of this evolution, capitalism is transformed from its initial ‘solid’ phase into a ‘liquid’ one. Indeed, as Berman (1988: 1; 302–303) suggests, paraphrasing Marx, the modern experience is exemplified in the metaphor “all that is solid vanishes into thin air”. With it, he expresses the emptiness resulting from the decomposition of any sacred vestige of meaning, of that which is essential enclosed in tradition, as a result of the Faustian advance of a modern economy promising historical achievements. To this idea, Marx (2014: 72–82), adds that commodities turn the real object into a fantasy independent of social relations, this fetishism being driven to hyperbole in consumer capitalism. In this way, a political economy of the sign is superimposed on every object (Baudrillard 1972: 172–199), causing its meaning to become inexorably linked to the spectacle (Debord 1999: 51–52). The latter is, therefore, the highest degree of fetishism that takes possession of things—and, as we shall see, of the city and skyscrapers. The *flâneur* strolling along the Parisian boulevards to whom Benjamin (1998: 173 et seq.) alludes already reveals this phantasmagoria that captivates experience, the product of a capitalism that, together with its economic system, conceals a new religiosity that, lacking a dogmatic doctrine, is accompanied by a faith and a cult of money (Benjamin 2014).

Well, consumer capitalism takes this situation to its maximum expression because it has the ambition to give aesthetic form to the real and because it privileges the fleeting, the transitory, the evanescent and the ephemeral, without forgetting that it produces a *re-enchantment* of experience with the dissolution of the matter of things in an aestheticizing and purely gimmicky fluidity (Sánchez Capdequí 2004: 314–328). As will be seen, this is precisely what happens in the skyscrapers of the post-modern era.

From patriotic individualism to the consumerist, consumerist self

Unlike the character of the European liberal revolutions, in the American one, individuals were born a priori equal, simply by the fact of being human (Tocqueville 1980: 123–132; Arendt 2005: 54–56). This led to the limitation of greed through the interrelation between egalitarian and fraternal sentiment and individual

freedom. The sacrifice of individual interest in favour of civic duty constitutes a vaccine against selfishness, so that patriotism is the result of convenience for all, once it has become a custom and a virtue (Tocqueville 1980: 157–182).

However, from the 1960s onwards, a utilitarian or expressive individualism that redefines values by virtue of the personal preferences of each individual deepened (Bellah et al. 1989). With the emergence of consumer capitalism, the ascetic *ethos* that was at the root of the cult of the individual will collide with the hedonism of a generation devoted to the demand for expressiveness and enjoyment and which places the experience of the self at the epicentre of the social (Bell 1987: 45–89; Lasch 1999: 21–75). But it is a “commodified” self, the result of the “fusion of the self and the market” (Kumar and Marakova 2008: 325) and, therefore, a consumerist and consumed subject.

This, in turn, causes a crisis in the relationship between the individual and the public interest, which results in damage to binding institutions and bodies. It is, therefore, the triumph of an individuation formed by a mixture of flexibility and disintegrating indifference to the common (Sennett 2008).

The American city’s connection to capitalism: individualism, abstraction, and evanescence

The grid of North American cities can be explained, in the first place, by the Calvinist heritage of the first immigrants, giving rise to a methodical, austere (Verdú 1996: 128–144) and rational urbanism that constitutes, with the mathematization of space, a rational urban design in an abstract and Cartesian sense that represents civilized life and makes space neutral and empty (Sennett 2004: 1–14).

However, North American cities eliminate the public center charged with historical and visual meanings, as well as presided over by a church, a coat of arms or an emblematic market. That is, they suppress the sacred and hierarchical symbolic center, following the democratic and individualistic founding principles of the North American nation (Verdú 1996: 134–136), as can be seen in the plans of Chicago in 1833 and Burham in 1909, which serves as a model for the future city (Fiol Costa 2007: 160) and the rest of North American cities. In the orthogonal plan of San Francisco, from 1849 and 1856, only a few small public spaces appear. In Sennett’s opinion, it is more accurate to refer to urban “nodes” than to centers and suburbs, the latter constituting something amorphous (Sennett 2004: 2–3).

The grid is associated, secondly, to the capitalist economy (Fig. 1), as far as, since the seventeenth century, it treats “the individual plot, the block, the street and

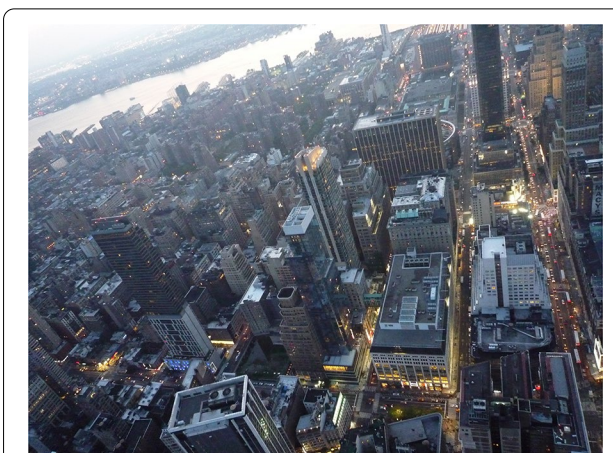


Fig. 1 The grid relates to the capitalist economy. Aerial view of New York. All photographs in this article are by co-author Juan Antonio Roche

the avenue as abstract units of purchase and sale, without the slightest regard for traditional customs and usages, for topographical conditions or for social needs” (Mumford 1961: 421). Thus, this American urbanism is inseparable from the evolution of the capitalist system (Williams 2001: 357 ff.). Indeed, at the beginning, capital, labor, and factories were irremediably linked to place (Bauman 2003: 31 ff.), but, since the 1990s, urban development has been connected by Jameson with global reorganization, with the economic patterns of late capitalism (Zukin 1988; Jameson 1996: 23–83) and with economic and socio-cultural individualization. Thus, this connection between capitalism and place will change. Indeed, the conjunction of all these factors produces the transformation of urban morphology and, specifically, rationalization, city planning and privatization (Jacobs 2011: 467 ff.). The rigid separation that existed in the nineteenth century between the home and public space has been diluted in the twentieth century, as the private life of the home has been transferred to the public sphere. This, in turn, has led to the “domestication of public space” and the decline of public life and the sociability it represents. This is because privatized family members bring their privacy into the public space as individuals rather than as corporate groups (Kumar and Marakova 2008: 324–6).

In addition, urbanism develops a ‘production of space’ (Lefebvre 1974, 2013) at the service of the laws of production, circulation and consumption of goods, since the neoliberal economy reduces the city to a mere image, an emblem of the market, which, in turn, is the main agent of the privatization of public space to which we have just alluded (Ramírez-Ibarra 2015: 3). This goes hand in hand, to a significant



Fig. 2 The Chicago River surrounded by skyscrapers

extent, with the accelerated development of rail and automobile communication routes, a sign of the machinism implanted by the capitalist economy and of abstraction—and, therefore, of rationalization.

Consequently, American cities symbolize a way of life governed by an objective and abstract rationality, which is signified through a series of symbolic-imaginary representations (García Canclini 1997; Silva 2006), which are superimposed on their materiality, objectivity, or physicality. In other words, it illustrates how the capitalist economy induces a lifestyle in which understanding dominates sensibility (Simmel 1986: 247–270) and in which rationally planned urbanism at the service of the economy eliminates lived urbanism (Sansot 1996: 409 et seq.). This explains why it turns its inhabitants into pieces of a productive-administrative puzzle, why it produces an emptying of life, a ‘non-place’ (Augé 1995: 15–47), why the city becomes abstracted from matter and distances itself from the sentimental communion with the organic (Worringer 1997: 17–39) and, in short, why it supplants the ways of inhabiting attached to organic forms of life (Mumford 1979: 421–429). For if the North American natural world had originally been immense, open and limitless, the grid arbitrarily dominates it, depriving it of meaning and environmental value. It even rejects the elemental irregularities of geography, while denying the complexity and difference of the environment and neutralising its particularities and those of place.

For example, in Chicago and other cities, the grid was applied to irregular ground, so that blocks suppressed the natural environment and sprawled indifferently over the hills, rivers and forests in their path. This created in Chicago itself many problems for the riverbed through which it runs (Fig. 2) and, in New York, a natural void in Central Park (Sennett 2004: 1–5) (Fig. 3).

On the other hand, abstraction corresponds to the economic logic in which money has been instituted as the exchange value levelling all quality and, therefore, as an accounting magnitude. This has accelerated in the last three decades, at a time when the vertiginous temporal acceleration derived from the instability of capital flows (Harvey 1998: 251–266) has generated indifference to any singularity (Simmel 1976: 535 ff.). Moreover, because of transnational processes of economic globalization, the ‘global city’ (Sassen 1995) has restructured the infrastructure of urban space and denationalized and neutralized places, differentiating between ‘built space’ and ‘inhabited space’ (Sennett 2019: 10). Indeed, these global flows of capital and the very dynamics of capitalism have generated *detritorialization* (Deleuze and Guattari 1994: 454–465), as large metropolises transcend the geographical borders of nation states and uproot themselves from territory.

The urban link with capitalism, with individualism and urban abstraction, goes hand in hand with spatial evanescence, present in the arts and in the city (Roche Cárcel and Carretero 2020; Roche Cárcel 2009: 127 ff.). Thus, consumer capitalism encourages *hyperspatialisation*, as far as it produces an excessive, virtual and artificial space, a topology of an ‘imaginary hyperspace’ (Castro Nogueira 1996: 59). In fact, everything seems to be a copy of from the Hollywood dream factory (Fig. 4), which together with the leisure parks and shopping centers where there is an abundance of papier-mâché decorations, leads to the “production of space” ceasing to be abstract, formal and Euclidean and becoming *hyperreal*. Thus, it is no longer possible to distinguish between fantasy and reality, while culture is moving towards a scenography of the simulacrum, towards the “desertification of the real” and, in short, the whole of North America becomes a nation more imagined than real, a great collective dream (Baudrillard 1987: 20–146, 1992: 9–19).



Fig. 3 Tamed nature in Central Park



Fig. 4 A sculpture of Marilyn Monroe in downtown Chicago. The urban model of Hollywood

The symbolic form of skyscrapers: symbolism and capitalism

Skyscrapers, a symbolic form

The first skyscrapers were built at the end of the nineteenth century in Chicago, becoming an emblem of North American culture, which would be exported to the rest of the world (Cabas 2011: 207; Mory 2012: 94). Indeed, modern American architecture follows settlement patterns similar to those of this city and owes an important part of its development to the technological innovations developed by its planners, designers and builders (Boils Morales 2003: 477). New York—the city of finance—quickly joins it and, in addition, establishes a competitiveness and a “war of heights” with Chicago—the city of production—(Terranova 2003: 101), which stimulates the construction of a multitude of skyscrapers, their innovation in design and technological progress.

Well, these buildings are symbolic (Gravano et al. 2016: 111–127), as far as American society recognizes itself in them (Roche Cárcel 2007, 2017) and insofar as they are the fruit of creative human action aimed at engendering new forms in the city, signifying and re-signifying it. In this respect, it is very revealing that the skyscraper constitutes a cultural symbol and a capitalist project, since the former draws attention to what it ‘signifies’ and the latter to the logic that brings people and materials together in a temporal arrangement that produces economic value—as will become clear.

In fact, in skyscrapers the representational value is as important as their use value, as is the case, for example, in the *Tribune Tower* in Chicago (Jang 2012: 9) or in *Rockefeller Center*, conceived as a project with a more ideal and symbolic than commercial character and, specifically, as a symbolic-fantastic object (Terranova 2003: 55–57).



Fig. 5 The *Paramount Building* in New York or the film business

Skyscrapers: capitalist, individualistic and evanescent form *The American skyscraper, symbol of capitalism*

The skyscraper is therefore profoundly linked to the economy, not for nothing it arose in the nineteenth century for offices (Mory 2012: 95), just at a time when the economy of steel and mass production characterized North America. In fact, the architecture of this building has become industrialized, as the basic materials with which it works are steel, aluminium, glass, plastic, and concrete, all from mass production (Dupré 2005: 45). Moreover, high-rise buildings bring economic and innovative value (Eichner and Ivanova 2018) and—as has been said—“skyscrapers are the ultimate architecture of capitalism” (Willis 1995: 181), as they symbolize corporate power (Wells 2005: 6; Terranova 2003: 6; Dupré 2005, 6). This is the case, for example, with the *Woolworth Building*, a monument to the commercial power of its commissioner, Frank Woolworth (Terranova 2003: 27), or the *Paramount Building* (Fig. 5), which establishes a connection between the building—its shape resembles a film set, the company’s logo and the film business (Stichweh et al. 2009: 177).

But if skyscrapers represent capitalism, they do so primarily for practical reasons, because they are the product of land classification, tax laws and the real estate and money markets. But also, for symbolic reasons, because they express a romantic dimension of power and the urban condition, because they are skillful works



Fig. 6 *Marina City* is a multifunctional building

of economic manipulation, as well as monuments to the market and to business prowess, celebrating economic profit; in short, because they represent the apotheosis of American business and consumer culture (Huxtable 1988: 8 ff.).

In other words, they are money-making machines in big cities, they celebrate commercial success and the accumulation of individual wealth, and they become a prominent marker of the contemporary economic cycle, with its recurrent crises and recoveries. Two significant examples are the *Rockefeller Center*, 1933, which employed 4000 people in the midst of the Depression of 1929, and the *Citigroup Center*, 1977, which denotes New York's return to growth interrupted by the severe oil crisis (Stichweh et al. 2009: 105 and 151). Not to mention that skyscrapers decisively drive industry and the whole dynamic economy behind their construction, as revealed by the use of modern construction methods, the adoption of efficient abstract forms, the predominance of functionalism and the planning of many projects—mainly infrastructures—in large urban neighborhoods.

Finally, because they are not built or occupied by individual corporations—with few exceptions—but by groups of investors as rental properties, they house many international companies with office headquarters, banks, world trade centers, 5-star hotels, commercial spaces, branded shops, *boutiques*, restaurants, gyms, and multi-screen cinemas, which, thanks to globalization,



Fig. 7 Chicago's competitive individualism as seen from the *John Hancock Center*

has made them multifunctional. This is what happens, for example, in *Marina City* (Fig. 6), which has all the services in the building itself, insofar as it is a complex of flats, specialized shops, leisure and recreational facilities—swimming pool, theatre and bowling alley—offices, restaurants and banks, and also has public spaces, car parks, parking and mooring for boats (Terranova 2003: 5–9; Dupré 2005: 58–9; Wright 2008: 48–50). The *Aqua Tower* also has a mixed residential use and, in addition, conceals an underground car park and the base of the eight-story building is covered by a terrace with gardens, swimming pools, hot tubs and a jogging track. The *Westin New York* also has a hotel, bar, shopping centre, restaurants and theatres inside, as does the *Austrian Cultural Forum* (Höweler 2003: 140; Spirito and Terranova 2008: 80).

Added to all this, through their high panoramas, they offer a view of the world, from and towards capitalism (Zhu 1999: 97; Thornton 2012; Tang and Zeng 2012: 691–2; Al-Kodmany et al. 2013: 24; Parker 2015: 217–230).

This is the case, for example, with the views of the *Bank of New York Building* in the financial district, 650 feet high, or those of *One New York Plaza*, which, significantly, are continually being destroyed and replaced by others, as buildings are torn down and replaced by others (Stichweh et al. 2009: 21 and 29). From the observatory of the *John Hancock Center* (Fig. 7), one can see the city of Chicago as a whole and, in particular, a great density of buildings composed of numerous skyscrapers, of different heights, reflecting each other on their facades, observing each other and, in short, competing with each other. In contrast, there is no agora, no public space, and hardly any traffic on the streets, both of which, like the citizens, are slowed down by architecture that is not made to human measure. Rather, it looks like a great superhuman city full of



Fig. 8 *The Charging Bull* symbolizes the stock bull market

unique skyscrapers, in an inhuman struggle to become the tallest, the best designed, the most innovative, the most expensive and the most technologically advanced. Chicago is thus expressed as a city of competing individuals, a city that projects an image of itself that is nothing more than a reflection of the spirit of a strongly individualistic and competitive capitalism that leaves little room for the political and social encounter of its citizens. The same individualistic competition can be seen from the panoramic view of New York City from the top of the *Empire State Building*. For its part, the quest for privacy and intimacy of the *Lake Point Tower* (Wright 2008: 51) only confirms this appalling individualism.

Skyscrapers or from rationalist to spectacle capitalism

Skyscrapers embody the rationality of space, methods and modern organizations and are also a materialization of these organizations. Thus, their growth is based on that of bureaucracy and its rationalist organization, for their forms bear witness to industrial capitalism, to the

logic of capital accumulation and to the virtues and complexities of the division of labor.

The *Empire State Building* is the perfect embodiment of this, as the work phases of its construction followed an organizational pattern. In front of the *Standard Oil Building* is a bronze statue, *The Charging Bull*, by Arturo Demodica, symbolizing the bull market (Fig. 8). The decoration of the surfaces of *Rockefeller Center* are inspired by heroic and mythical themes, linked to the virtues of characters focused on their work. The entrance to the *Fuller Building* features the New York skyline and portraits of its workers (Fig. 9), as does one of the doors on the second floor of the *Green Building*, which features bas-reliefs of workers. *15 Park Row*, when it was built in 1899, housed more than 4000 employees who could see, from the window, the construction of the underground line of the company that had been the driving force behind the building (Terranova 2003: 58; Wright 2008: 10; Stichweh et al. 2009: 12–91).

Sober capitalism is especially evident in the buildings of the *International* or modern style, considered a paradigm of rational and modern living (Dupré 2005: 45). In fact, this style seeks balance through proportionality between the horizontal and vertical and with the equality of all floors, divided into multiple and similar squares. In both cases, therefore, what predominates is a certain ethic of austerity and restraint and the expression of a more subtle and indirect business propaganda (Domínguez 1997: 84).

Examples of this are the curtain walls of the *Seagram* designed by Mies van der Rohe (Fig. 10), which manifest order, logic, clarity, the elegance of emptiness, purity, and absolute renunciation. Rationality is also expressed in the *Lever House* through its simple geometric forms and the uniformity of its curtain wall, in the essentialist design of the *Grand Union Building*, and in the minimalism of the *John Hancock Tower* and the *United Nations Plaza Hotel* (González García 1992: 68ff; Hughes 2000: 181; Stichweh et al. 2009: 125 and 129).

Similarly, some post-modern skyscrapers follow a rationalist architectural trend, as is the case, for example, with the *Sony Building* (formerly *AT&T*), a solid, vertical, 1920s-style tower, or the *Freedom Tower*, which has a square floor plan, creating a simple, elegant geometric form with a concrete core and a glass-clad steel structure. The *7 WTC* is also a simple building with a parallelogram plan, and the *New York Times Tower* is inspired by the regularity of Manhattan's orthogonal plane. It is also a pure prism (Fig. 11) that offers a simple, elegant image and symbolizes the transparency of the newspaper's news reporting. In this sense, like the *Rockefeller*, it makes visible the work activity that takes place inside, as it offers a view of its employees, thus relating the newspaper to



Fig. 9 The entrance to the *Fuller Building* shows the New York skyline and portraits of workers



Fig. 10 The curtain wall of the *Seagram* in New York expresses order

the people on the street it is intended for (Höweler 2003: 52; Spirito and Terranova 2008: 169–176; Wright 2008: 76–175; Stichweh et al. 2009: 170).

The opposing vision is manifested in most of the postmodern skyscrapers, as they criticize the rationality of the *International Style*. This is what happens in the *Marina City*, which rebels against the rectangular box, the straight line and the idea of the human being made to fit the machine. The same is true of *Two Prudential Plaza*, the *AT&T Headquarters*, which defies the nihilism of glass boxes, the *Lake Point Tower* (Fig. 12), which pushes the limits of the *International Style*, and the *Lipstick Building*, which has an elliptical form that breaks with the rigid orthogonal plane of Manhattan and with the neighboring regular parallelepiped and square buildings (Terranova 2003: 5–9, 143 and 178; Dupré 2005: 58–9 and 85; Wright 2008: 48–50 and 77).

The sharp geometry of the *Austrian Cultural Forum*, its precarious structure and the tectonic vocabulary used by the architect, who did not wish to make the building rise, but to “suspend” or “fall” it, make it a spectacle, with a dramatic form and a powerful visual impact (Höweler 2003: 140).

Likewise, the *Condé Nast Building* fits into the architectural environment of *Times Square*, as its base displays advertisements and billboards, its façade has a luminous screen with information on the NASDAQ stock



Fig. 11 The *New York Times Tower* is a pure prism



Fig. 12 Chicago's *Lake Point Tower* exceeds *International Style* limits

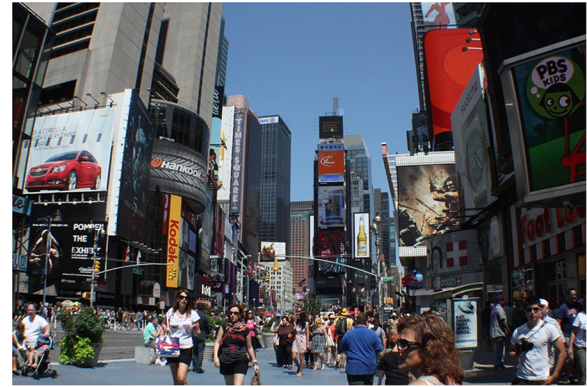


Fig. 13 The spectacular architectural setting of Times Square

function seeming to follow form and to an investigation of form by form, so that structure becomes sculpture (Connor 1996: 55).

This is the case, for example, at *80 South Street*, a residential tower inspired by sculpture, while the western façade of the *Condé Nast Building* seems influenced by pop culture, as does the *Lipstick Building* (Fig. 14) which resembles a lipstick reminiscent of a pop sculpture by

market and manages to reconcile a “marriage of pop culture and business dignity”. The *Westin New York*, on the other hand, differs profoundly from the *International Style* and, rather, synthesizes—like the spectacular Disneyland spirit of *Times Square*—with its theatres, large, illuminated signs, neon lights and billboards, architecture, and graphic design (Fig. 13). The façade of the *New York Times Tower* is also screen-printed with the name of the newspaper, taking up the pop character of *Times Square*. And the angular *Times Square Tower*, with its diagonal lines, plays with the environment of neon lights and billboards, either to eliminate the visual cacophony of the place or to reflect it, thus becoming its contrast and, at the same time, its complement (Höweler 2003: 52, 164 and 185; Wright 2008: 114; Spirito and Terranova 2008: 78 and 169; Stichweh et al. 2009: 175).

Thus, architectural postmodernity relaxes the rigid norms of the modern, renounces and devalues the beliefs manifested in its constructions and transforms its elegant restraint into a “titanic” character (Terranova 2003: 8), into an “imperial and spectacular splendor” in which form no longer seems to depend on function but on image (Sudjic 2007: 84 and 248). This means that the sacred motto that form follows function gives way to



Fig. 14 The *Lipstick Building* in New York looks like lipstick

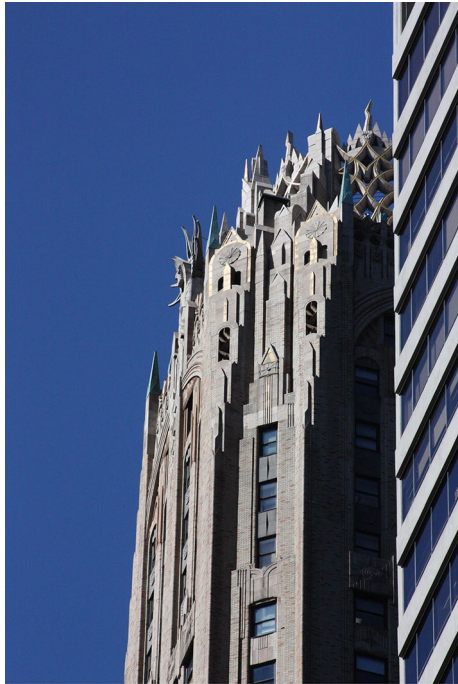


Fig. 15 The *General Electric Tower* in New York represents electricity and radio waves

Claes Oldengurg representing common everyday objects. This is common in postmodern skyscrapers where ornamentation, context, contrast, variety, symbolism, imagery, and metaphor dominate, representing more an architecture of communication than of space, and thus requiring metaphor and symbolism (Venturi 1998: 29; Fernández Alba n.d.: 13ff; Terranova 2003: 143 and 283; Dupré 2005: 93; Wright 2008: 137).

Thus, if the post-World War I skyscrapers insisted on the grid, technology, and profit, and if, with their pragmatism, they renounced the conception of the skyscraper as theatre, the postmodernists endow their constructions with radiance and fantasy, combining cultural and technological references, in a return to a certain theatricality of architecture.

From solid, industrial capitalism to light or evanescent consumerist

This evolution from rationalism to spectacularization parallels the shift from solid to liquid capitalism. The first skyscrapers symbolize solid capitalism through the pursuit of an industrial image and order achieved through a heavy structure and luxurious interior spaces that display the strength and wealth of their owners (Spirito and Terranova 2008: 170).



Fig. 16 Chicago's oldest buildings represent solid capitalism

The industrial image is present in the designs of the *American Radiator Building*, which is clad in black brick—the symbol of coal—and decorated with gold pinnacles and finials—the symbol of fire—but also represents the transformation of raw materials into energy; the *Carbide and Carbon Building*, which uses black granite at the base and dark terracotta to imitate the colour of coal; and the old *General Electric Tower* (now *RCA-Victor Corporation*), whose decorations pay tribute to electricity and radio waves (Fig. 15). The *Chrysler Building* includes decorative elements linked to the automobile design aesthetics of the 1920s, such as the gargoyles imitating the *Plymouth* bonnet ornament, as well as the interior decorations and paintings emulating radiators, wheels and body decoration (Terranova 2003: 33–39; McBrien 2004: 21; Wright 2008: 20–22 and 76; Willis and Berenholtz 2009: 48–51 and 146–149; Stichweh et al. 2009: 81–91 and 108).

Chicago's oldest buildings, which are located in the city center, have a solid structure made of materials such as stone or steel (Fig. 16). This is the case of the *Home Insurance Building*, the first skyscraper in history, dating from 1885 and demolished in 1931, which had a metal structure, a façade with powerful corner brackets, large windows, and a wide cornice, giving it a heavy structure that imitated traditional ones, and which had not yet entered the “Age of Uncertainty”. Solidity and sobriety also define the *Chicago Board of Trade* and the *GE Building* (formerly the *RCA Building*). In the *Carbide and Carbon Building*, granite and dark-colored terracotta are reminiscent of coal (Galbraith 1984; McBrien 2004: 30; Dupré 2005: 15; Wright 2008: 21, 22 and 30; Cabas 2011: 208–9).

The traits of solid elegance, luxury and stability-seeking steel structure also define New York's oldest skyscrapers,

as in the *Woolworth Building*, the *Flatiron*, the *American International Building*, the *American Radiator Building*—the first tower to express the spirit of the new era through the dynamism of its structure—and the following buildings. The *Metropolitan Life Tower* conveys, for instance, a sense of stability and success to the customers of the insurance company that built it, while the *Fred F. French Building* expresses the company’s philosophy of progress, vigilance, and industry. The *20 Exchange Plaza* shows decorations on the doors and on the building about agriculture, as well as coins symbolizing prosperity and the *City Bank Farmers Trust Company* itself, the bank constructing the building (Wright 2008: 13 and 16; Stichweh et al. 2009: 27–165) (Fig. 17).

The *Chrysler Building* uses a structure of pilasters, steel beams and durable materials, and displays paintings celebrating the progress of modernity, the plans and construction of the skyscraper itself, and a luxurious interior décor belonging to the ‘Cloud Club’ for New York’s economic elite (Stichweh et al. 2009: 91; Willis and Berenholtz 2009: 152). The luxury of the *Marriott East Side Hotel* favors the permanent residence of celebrities such as Georgia O’Keeffe, her husband, or the photographer Alfred Stiegliz, while something similar happens at the *Ritz Tower*, whose elegant and luxurious flats attract numerous prominent residents such as Greta Garbo and Deborah Kerr, as well as the newspaper magnate W. Randolph Hearst (Terranova 2003: 39; Stichweh et al. 2009: 110 and 131).

The *Empire State Building*, for its part, expresses solidity through its gigantic, massive volume and its strong adherence to the ground. In addition, through the golden representation of itself in the lobby (Figs. 18, 19), it denotes an optimistic confidence in progress and in the future; it is no coincidence that it is a symbol of the American dream, just at the time of the depression



Fig. 17 The façade of *20 Exchange Plaza* in New York shows ornaments on agriculture

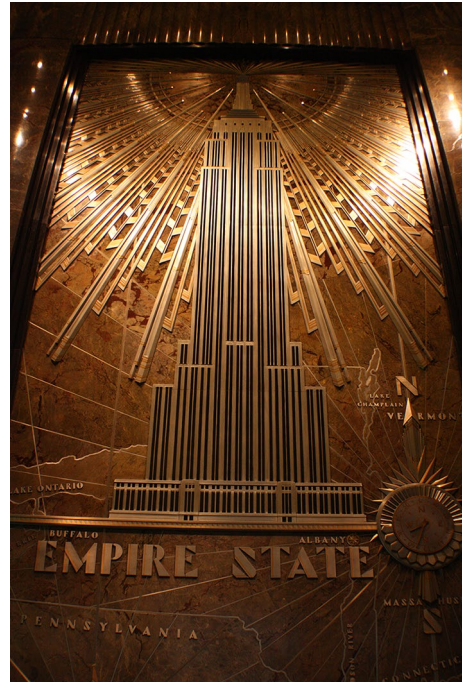


Fig. 18 In the lobby and inside, the *Empire State Building* in New York represents itself

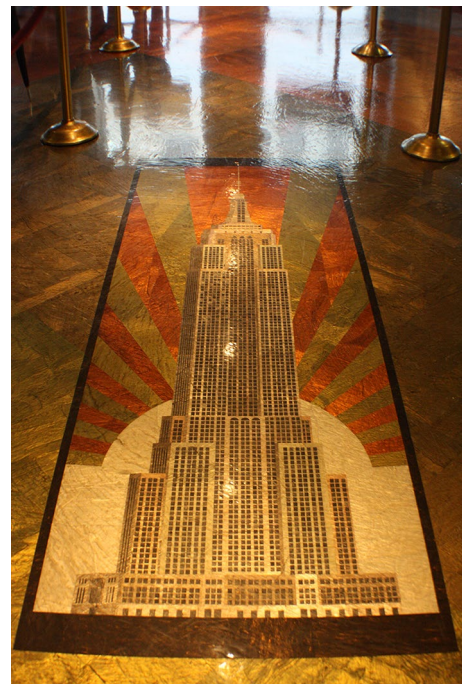


Fig. 19 Inside on the ground the *Empire State Building* in New York represents itself

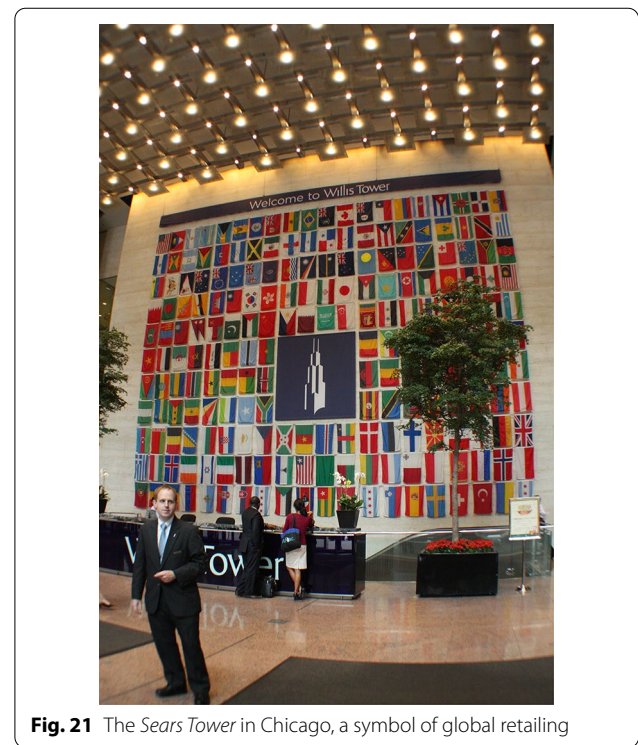


buildings, the *Reliance Building*, by the architect Daniel H. Burnham, built in 1894, 61 m high, with undulating forms and materials such as steel, glass, and the terracotta of the façade. These last two materials allow the steel structure to be displayed in a more graceful and simple manner, making this building a clear precursor of the *International Style*. Moreover, this skyscraper is dedicated to offices and, being separated from the factory or workshop, this entails erecting in the very center of the city, in Chicago—and later in American cities and all over the world—a new, more expensive neighborhood, specialized in an economic business activity that develops multiple social and economic interrelationships between office workers, executives and entrepreneurs and, between them, and the rest of the citizens. *Sears Towers* reaffirms the city of production versus the city of finance, through the desire of the retail company Sears, Roebuck & Company to create a headquarters—which distributes to the whole world, as represented by the flags in its entrance hall—in accordance with its status, for 10,000 employees and 6000 residents (Terranova 2003: 24 and 100–107; Dupré 2005: 23–25; Wright 2008: 12 and 62–63) (Fig. 21).

The order to which we refer is also obtained with the glass that dominates the facades, as far as it evokes a clean and organized lifestyle, as does the monumentality and basic geometry, which, likewise, imply a formalization of the world (Sánchez Capdequí 2004: 221). Similarly,

of 1929. The same hope is found in the iconography of *Rockefeller Center*, in that of the *Chanin Building*, whose reliefs show mechanical zigzags and curves symbolizing opportunity for the city and its workers, and in that of *Radio City Music Hall*, whose interior highlights the Progress of Man and maps illustrating human dominion over the world. Likewise, a tall light has been installed in a raised plaza separated from traffic in front of 55 *Water Street*, reminiscent of the *Titanic Memorial Lighthouse* that once stood there and has become a ‘Beacon of Progress’ (Terranova 2003: 44–54; Stichweh et al. 2009: 31–85).

Manhattan’s first skyscraper is the *Flatiron*, whose Renaissance form is due to the funding of self-made millionaires who boasted of being Renaissance patrons (Fig. 20). No wonder, then, that its rusticated stone anchors it to the ground, yet its shaft shape gives it a sense of lightness, while the triangular shape of its plan provides it such dynamism that it resembles “a ship sailing the sea”. Thus, although it is part of solid capitalism, it also announces a future defined by lightness. The same is true of another of Chicago’s first



the horizontal arrangement of windows, which contrasts with the verticality of oldest buildings, defines the *International Style* (Wright 2008: 31) and some of the postmodern.

Prototypical examples are the *Lever House*, the first office building with a glass curtain wall, a clean, modern box, in line with the image of the soap manufacturer who promoted its construction; the *One Chase Manhattan Plaza*, a glass and aluminum body without ornamentation; the *MacGraw-Hill Building*; *60 Wall Street*, with an accentuated façade; the *IBM Building* and the *Trump World Tower*, a pure, simple, sober, homogeneous, abstract parallelepiped, with stylized lines and crowned without joints, reminiscent of the “boxes” of the *International Style*. The façade of the *New York Times Tower* is also horizontal, as is that of *One Astor Plaza* (Álvarez Garreta 2011: 354 and 424; Wright 2008: 31 and 40; Spirito and Terranova 2008: 58–61; Stichweh et al. 2009: 37–178).

However, glass also symbolizes the mobile, ephemeral, speculative, invisible, hedonistic, consumerist, and lightweight nature of business and consumer culture due to the nature of this material. It is solid like stone, but transparent like air, and it is a liquid and not a fluid, i.e., its molecular structure is like that of a liquid (e.g., water) in which the molecules are not rigidly aligned with each other in a lattice structure (Bova 2004: 201).

The eclectic European architects of the beginning of the century, even if they did not know these characteristics of glass that science has revealed to us, had a profound intuition of its nature and its function in contemporary society: “Long live the transparent, the diaphanous! Long live purity! Long live glass! Long live the fluid, the graceful, the angular, the sparkling, the brilliant, the light! Long live eternal architecture!” wrote the architect Bruno Taut euphorically in 1919. Thus, architects of this period believed that flat glass was the supreme utopian material, a pure prism that signified lightness, transparency and structural boldness and suggested a sensitive skin that differentiated it from brick or stone, which constituted, on the contrary, a crust or wall against the world (Hughes 2000: 175 ff.).

Finally, it can be said that glass is the most appropriate material to represent the real estate bubble that has recently driven the construction of skyscrapers and that confer an invisible aspect to their owners, since “they have created spaces in which it is not easy to leave a trace”. That is to say, they are inhabited without leaving a presence (Benjamin 1998: 153–4 and 170–1), since “the smoked glass facades resemble faces: frosted surfaces...as if there were no one inside, or no one behind the faces” (Baudrillard 1987: 85). This is precisely what happens in the *One and Two United Nations Plaza*, for while the

glass façade reflects the surroundings, it offers no view of the interior (Stichweh et al. 2009: 96).

But the truth is that the inhabitants of the tall towers, even if they cannot be seen, are inside. In the *Trump World Tower*, for example, inside the sober and simple bronze curtain wall, there are spaces lined with high-quality materials, richly furnished, and extravagantly decorated, in which well-known personalities such as Bill Gates, Sophia Loren or Harrison Ford walk and live. Adnan Khassoggi, who leads an ‘extravagant lifestyle’, lives in one of the flats in the *Olympic Tower*, and at *80 South Street*, prices in the ‘cottages in the sky’—the free-standing cubes that make up the building—exceed \$29 million (Wright 2008: 137; Spirito and Terranova 2008: 61; Stichweh et al. 2009: 97, 143 and 149).

In architectural Postmodernism (Huxtable 1988: 8–11 and 99–119), which cannot help but represent, however unconsciously, the reinforcing role of the logic of consumer capitalism (Jameson 1998: 22 and 214–227; Calinescu 1991: 279ff.), the glass of the skyscraper softens its form, making it lighter. This is the case in the *Hearst Tower* at *101 Park Avenue*, whose fragmented façade makes the building lighter, and in the *One and Two United Nations Plaza*, where each structure deprives it of a sense of static solidity (Álvarez 2001: 18; Spirito and Terranova 2008: 156; Stichweh et al. 2009: 96).

Glass, on the other hand, turns tall towers into purely hedonistic or pleasurable visual objects that give pleasure to the eye and thus symbolize a shop window, another commodity, just as the surroundings—the city, other buildings, the sun, the sky, or the clouds—also transformed into merchandise. A paradigmatic example is the *Peachtree Plaza Hotel* in Atlanta, designed by the architect Portman, who wanted to turn his skyscrapers into a symbol of consumption, another commodity that could be advertised and sold (Terranova 2003: 109). Moreover, this building, next to offices, contains a leisure and consumer space with hotels, restaurants, bars, banqueting halls, convention halls, museums, saunas, gyms, tennis courts, shopping centres, shops, halls for cultural activities (cinemas, exhibitions, conferences, theatres...), etc.

The conversion of the skyscrapers themselves into shop windows is also evident in the reflections of their glass façades. This is the case, for example, at the *Plaza Hotel*, whose façade slopes downwards towards the reflected street, just as the clouds do. In the *Citigroup Center*, in the *United Nations Plaza Hotel*, which reflects the world around it, just as the glass curtain wall of the *Trump World Tower* does with the light, the clouds and the shapes that surround it (Fig. 22). This effect is also produced by the *Lipstick Building*, whose windows reflect the light from the surrounding buildings, and the *Union*



Fig. 22 The *Trump Tower* in Chicago reflects the clouds, the sun, and the surrounding buildings on its curtain wall



Fig. 23 The *Hearts Tower* in New York and its deconstructed forms

Carbide Building, whose uniform illumination produces an extraordinary impression, particularly in the evening hours. Similarly, the glass façade of the *World Financial Center*, at its highest point, reflects the last rays of the afternoon sun, and the glass of the continuous grey glass wall of *Two Prudential Plaza* also possesses this reflective character, while the irregular figure produced by the chamfered corners of the *Hearst Tower* exhibits a multitude of kaleidoscopic reflections on the city. In the same way, the gleaming glass façade of *7 WTC* reflects the brick building of the historic *Barclay-Vesey*, and the glass façade of the *Equitable Building* reflects the Chicago River (Terranova 2003: 144 and 174–179; Höweler 2003: 46; McBrien 2004: 36; Dupré 2005: 73; Spirito and Terranova 2008: 61 and 156; Wright 2008: 175; Stichweh et al. 2009: 105 and 121).

The mobility to which I have referred is not only achieved by the skyscraper through glass, but also through other strategies. For example, the subtle interplay of verticality and horizontality on the façade of the 1891 *Wainwright Building* encourages the viewer

to move from one side of the façade to the other and reveals the dynamic commercial life of the interior. The same is true of *8 Spruce Street*, *Hearts Tower* (Fig. 23), and *101 Park Avenue* in New York, whose deconstructed or fragmented facades help to break up the form and expand the visuals. The *First Interstate Bank Tower*, for its part, exhibits a façade of reflective glass sheets that are assembled in such a way that the joints cannot be seen, so that the surface always appears different, depending on the point of observation and the atmospheric conditions, “as if it were a geometric form in perpetual movement”. Finally, the façade of the *Aqua Tower* imitates the moving waves of the river (Álvarez Garreta 2011: 18; Terranova 2003: 139) (Fig. 24).

Individualistic capitalism without individualism

The evolution from solid to liquid capitalism affects the concept of individualism represented by skyscrapers. In modern skyscrapers, for example, it is expressed through the notion of autonomy, since they are independent of the urban and natural environment. Thus, the skyscrapers of the *International Style*, which are built in the center of



Fig. 24 The *Aqua Tower* in Chicago has a façade that mimics the ripples of the river



Fig. 25 The *MetLife Building* threatens the presence of the neoclassical building

the city—in a place where land is awfully expensive—embody an autonomous ideal, as they are set back from the street and leave half of the available area empty. They are thus individualized from the material, historical and urban reality and are turned into self-sufficient artistic objects.

This is the case with *101 Park Avenue*, which is set back by a chamfered façade and faces a public square. Similarly, the *Esplanade Apartments* and the *Seagram Building* are autonomous from the street. This last example is significant, as it achieves an apparent urban legitimacy that has forgotten the lessons of history and the very nature of power and has made it ephemeral and forgotten. The *Seagram*, although it placed a square between it and the street, through its setback, pursued autonomy; in fact, this public space is a “quiet island in the jungle of the metropolis”. Moreover, the building seems to stand out and impose itself on the city rather than serve it, and for this it has paid a high price. True, what it has actually achieved is precisely the opposite effect, because today, when you walk down the street

where it is built, it no longer looks distinguished and singular, but is hidden by the new skyscrapers built after it, which have adopted the line of the street and have tried to legitimize themselves by participating in the urban fabric. The *John Hancock Center*, for its part, is also an autonomous building in relation to the rest of the constructions, as if it were an element in itself. This explains why it is projected towards the sky and not towards the pavement, so it has no relationship with the street or with the other buildings on Chicago’s “Great Mile”. The *MetLife Building* (formerly the *Pan Am Building*), finally, seems to threaten the presence of the neoclassical building (Fig. 25), as it dwarfs *Grand Central Terminal* and blocks the view of Park Avenue (Terranova 2003: 84–89; Dupré 2005: 63; Wright 2008: 43–45 and 52–54; Álvarez Garreta 2011: 19; Stichweh et al. 2009: 115–117 and 126).

During the postmodern era, skyscrapers express a notorious individualism, for example in the signature buildings of New York’s great architects, as they combine competition, marketing, and mass consumption (Zukin



Fig. 26 *One Madison* in New York is composed of self-supporting cubes



Fig. 27 The shape of the top of the *Citigroup Center* in New York offers a unique visual perspective

1988: 438). Manhattan's skyscrapers, in particular, are the symbol of the city's individualistic economic power, as they seek profit maximization and are driven by constructive ego (Barr 2010: 567).

For example, *Trump World Tower* contrasts the limestone of the 1920s buildings with the reflective towers, thus violating both the codes of the building area in which it stands and architectural tradition. *425 Lexington Avenue* maintains formal relationships with adjacent buildings in which it emphasizes the principal unique characteristics of each, while at the same time possessing an independent profile. *One Madison* or *80 South Street*, on the other hand, are composed of a series of self-sufficient, multi-story high cubes (Fig. 26) (Wright 2008: 137; Stichweh et al. 2009: 97, 111 and 143) and most of the buildings in Bryant Park reflect both the corporate image and prosperity of New York (Jang 2012: 9).

In this sense, Minoru Yamasaki, the architect who built the *World Trade Center*, is fully aware of the individuality of his skyscrapers: "Because of its importance, the *World Trade Center* should become a symbol of man's

faith in humanity, his need for individual dignity, his trust in cooperation between men and through this cooperation, his ability to find greatness" (Dupré 2005: 67). Bin Laden and the *Al Qaeda* network, who ordered the attack on the *Twin Towers*, understood that the individuality expressed by the skyscrapers was one of the great values of American civilization: "The events of Tuesday, September 11, in New York and Washington are important at all levels. Their repercussions are not over. While the collapse of the twin towers is enormous, the events that will follow, and I am not just talking about the economic repercussions, will be even more dangerous and formidable. The values of this American-led Western civilization have been destroyed. Those towers, so symbolically impressive, that spoke of freedom, human rights and humanity have been destroyed. They have gone up in smoke..." (Bin Laden). We can therefore think that the devastation of these same values guided Mohammed Atta, one of the suicide bombers who attacked the *Twin Towers*, since he had studied architecture and authored

a thesis on the conflicts between traditional Islamic and modern Western urbanism (Sudjic 2007: 276).

The post-modern skyscraper, while seeking to blend into its urban context, nevertheless symbolises the pronounced individuality of the building. For example, the top, unorthodox massing, and asymmetrical angles give the *Citigroup Center* a unique visual perspective that sets it apart in the city skyline (Fig. 27). The cut-off roofs of *200 Greenwich Street* give it a personality of its own, while the singularity of the *Hearst Tower*, different from all nearby buildings, is achieved through its chamfered angles that create an irregular figure. In addition, it empties the historic 1928 based on which it rises and on which it superimposes a new, free-standing steel and glass structure. Finally, what distinguishes the *Austrian Cultural Forum* is the anthropomorphic façade (Höweler 2003: 140; Wright 2008: 172; Spirito and Terranova 2008: 155–156; Stichweh et al. 2009: 105, 155–156 and 187).

The individuality we are referring to also refers to the same architect who designs the skyscrapers and who is considered, by Robert Venturi (1992 and 1998) and Charles Jencks (1984), as the sole author and an independent individuality, without social processes being contemplated (López Rangel n.d.: 66); furthermore, these buildings are responsible for many social and urban problems (Eichner and Ivanova 2018). This is so, on the one hand, because, as skyscrapers expand quantitatively and not qualitatively, without destination and without limit (Abbott 2000: 62), the horizontal grid of the street with the vertical grid created by the height and the relationship between both planes does not show an intrinsic order nor does it establish visual relations above (Sennett 2004: 5–6)—as seen in the views of the cities of New York and Chicago from the top of skyscrapers. On the other hand, in these glass buildings the owners are made invisible—for example, in the *One and Two United Nations Plaza*, not to mention that the sociable language is very fragmented, as is the façade of some of the postmodern buildings mentioned above, such as 101 Park Avenue, 8 Spruce Street or *Hearts Tower*. Moreover, in them, there is no neighbourliness or mutual aid, which is why they resemble hotels—which not by chance are set up in them: in the *Marina City*, the *Westin New York*, the *Austrian Cultural Forum*, and the *United Nations Plaza Hotel*—and not a real home. In addition to this, each flat is identical to the others, so that they constitute neutral and impersonal spaces (Sennett 2004: 6). In other words, the different flats and the existing single overall system do not facilitate the difference between the various realities of the flats and their interaction, but the individualisation of each inhabitant (Jang 2012: 9). Thus, the dwellings become places of retreat, while

the grids on which the skyscrapers stand, and which sometimes form their own orthogonal, quadrangular or parallelepiped plan structure—in the International Style skyscrapers and, in the postmodern ones, *WTC*, *Freedom Tower* and *Sony Building*—are—as has been proven—spaces of rejection (Sennett, 2004: 7). If we add to this the fact that the buildings are no longer organically related to their physical surroundings, that they are unable to communicate with them and that they are not connected to each other, it is understandable that each of them forms an island. This is what happens with the *John Hancock*, which—as we had pointed out—seems to be “an element in itself”.

Thus, if skyscrapers symbolize the individualism of capitalism, paradoxically, they also express the diminished self of their inhabitants (Abbott 2000: 62), that they have lost their capacity for agency and, in short, that they have, in effect, ceased to be substantial individuals (Hancock 1980: 181).

Conclusions

In short, we believe that this article has highlighted the following symbolic issues.

- (1) That the skyscrapers of Chicago and New York represent the apology of an American business culture marked by strong individualism and competitiveness, as has been confirmed, for example, in the aerial views of the city offered by the *John Hancock Center* in Chicago and the *Empire State Building* in New York, in which the absence of the street, of public or green spaces stands out, and when the latter appear, they are framed, surrounded, imprisoned and domesticated by the urban grid and by the buildings themselves—in Central Park and on the Chicago River.
- (2) That they express the aesthetic transition from a rationalist capitalist architecture that models urban spaces and skyscrapers to another aesthetic where fiction, fantasy, theatricality and spectacularity take precedence. Rationality can be glimpsed in the older buildings, in those of the *International Style*—considered characteristically modern—and, to a lesser extent, in some post-modern ones. Thus, we have described the simple geometry of the *Sony Building* and the *Freedom Tower*; the essentialism of the *Grand Union Building*; the minimalism of the *John Hancock* and the *United Nations Plaza Hotel*; and the pure prism form of the *New York Times*. In contrast, the illusory or advertising-brand character is seen in the towers with light glass facades expressing the real estate bubble, such as *Hearts Tower*, *101 Park Avenue* and *One and Two*

United Nations Plaza; in reflective and evanescent skyscrapers or in those conceived as hedonistic visual objects, window dressing or merchandise, such as the *Trump World Tower*, the *Lipstick* or the *World Financial Center*; and, finally, in those buildings with a physiognomy of spectacle and pop culture, such as the towers surrounding Times Square in New York.

- (3) That this process is in tune with the transformation from industrial capitalism to consumer capitalism, which is manifested by the decline of structural, formal, and decorative architectural elements linked to austerity, rigidity, solidity, massive volumetrics, industrialization, luxury, monumentality or gigantism, firm seating on the ground, horizontal-vertical balance, heavy stone and steel structure, orderliness and stability, and their gradual replacement by structural, formal and decorative components associated with lightness, fluidity, liquidity, invisibility, dematerialization, evanescence, fragmentation, deconstruction and floating character. The first solid architectural elements are present in the oldest skyscrapers. In Chicago, these include the *Home Insurance Building*, the *Chicago Board of Trade*, the *GE Building* (formerly the *RCA Building*), the *Carbide and Carbon Building* and the *Reliance Building*. In New York, it is evident in the luxury of the *Marriot East Side* or the *Ritz Tower*; in the heavy structure of the *Woolworth*, the *Flatiron*, the *American International Building*, the *Metropolitan Life Tower*; in the faith in the future and the consequent cult of progress, prosperity, the opportunity offered by the city or the hope in overcoming the crisis of 1929, as in the *City Bank Farmer Trust Company*, the *Fred F. French Building*, the *20 Exchange Plaza*, the *Chrysler*, the *Empire State Building*, the *Rockefeller*, the *Flatiron*, the *Chanin Building*, *Radio City Music Hall* and *55 Water Street*.

The “liquid” skyscrapers are represented through glass, the prevalence of merchandise fetishism and within the framework of a hedonistic and consumerist culture. All this is exemplified in the aforementioned *Trump Tower Chicago*, *Hotel Plaza United Nations*, *Citigroup Center*, *Trump World Tower*, *Lipstick* and *World Financial Center*.

- (4) That American individualism has always been present, and from the beginning, in the skyscrapers of Chicago and New York. It has been because the promoters—builders, real estate agents, entrepreneurs, and the architects themselves—have left their mark, their competitive desire, distinction, and their ego. But this individualism that

characterizes North American capitalism has also mutated in recent decades, as it has drifted from a primordial praise of autonomy as a core value of society towards the cult of an individualized self, privatized, commodified and disconnected from public space.

Indeed, in the older buildings, there are numerous and diversified social and economic interrelationships between office workers, employees, and executives, and between them and citizens, as is the case, for example, in the *Reliance Building* in Chicago, as well as in the skyscrapers of New York’s Briant Park and, in the exceptional case, the postmodern *New York Times*, which connects its workers with the passers-by outside.

Typical American individualism is formalized architecturally, significantly, in the International Style, with its deterritorialization, i.e., its autonomous character from the street, from the building style and urban planning of the city, as well as from the natural environment. Prototypical examples in New York include the *Lever House*, the *Sea-gram*, the *Esplanade Apartments* and the *Metlife Building*.

This individualism is also evident in post-modern towers. This is most evident in Manhattan, where there is a strong presence of the constructive ego and individualistic economic power. Prominent examples are, for example, the self-sufficient cubes that make up *One Madison*, *80 South Street* and *Trump World Tower*, whose glass façade contrasts with the limestone of the surrounding buildings; the detached profile of *425 Lexington Avenue*; the “individual dignity” of the tragically defunct *World Trade Center*; the unique visual perspective of *Citicorp* in the city skyline; the distinct personality of *200 Greenwich Street*; the uniqueness of *Hearts Tower*, even more so in its setting; and the unique anthropomorphic façade of the *Austrian Cultural Forum*.

However, we believe we have shown that this individualism has evolved into the cult of an individualized self, privatized, commodified, and disconnected from public space. The architect’s own individuality, which has turned his creations into isolated, self-absorbed objects, as the Empire State Building anticipates, with the representation of the self that it shows inside. The path is continued by the fragmentation, reconstruction, and dematerialization of postmodern buildings, which simultaneously break, deconstruct, and dematerialize the individualization characteristic of each building. Along with these arguments, we have offered a multitude of others that support this disappearance of the patriotic individuality of Protestant origin: the inexistence of visual relations between the buildings at the top of the city, it is enough to observe

the three images we have selected of the panoramic view of Chicago and New York; the resemblance of the skyscrapers to a hotel and not so much to a home, not in vain in many of them hotels are installed—among others, in the *Marina City*, in the *Westin N.Y.*, the disappearance of sociality and neighborliness; the personalization of flats and, consequently, the extreme individualization of each inhabitant; the rejection of the grid as a common space; the construction of buildings without organic relationships, as if they were islands or narcissistic objects; the privatization and domestication of the public, particularly of the squares in front of skyscrapers—the *Rockefeller*, as an antecedent, and the *John Hancock*, as a representative contemporary square; and the invisibility of glass and, therefore, of the owners and of capitalism itself, which is no longer based on social interrelations and territoriality but on a diffuse globalization.

In this way, the individuals who inhabit the skyscrapers, invisible, self-absorbed, isolated, mechanized, and fragmented, become actors in a city turned into a great stage, a great spectacle, an ethereal dream, a great film. In short, these individuals cease to be individuals and become just another commodity, which is to say, objects of consumption, consumed, like the skyscrapers themselves.

Coda

In the end, all this has allowed us to confirm the sociological usefulness of skyscrapers. In this sense, it is worth saying first of all that, given the scarcity of sociological works dedicated to the universe of skyscrapers—the exception being certain Anglo-Saxon sociologists such as R. Sennett or J. R. Abbott, the Chilean J. Vergara Vidal and the Spaniard J. A. Roche Cárcel, this work aims to make a further contribution in this respect. Moreover, it aims to be a contribution in the line opened up by the classical antecedents of sociology—Durkheim, Weber, Mead and Halbwachs—and, above all, by Lefebvre, who turned the study of urban space and architectural works around by converting them into sociological, economic, social and cultural objects. Our contribution therefore follows this path and does so in the sense of the symbolic interpretation of these objects, as advocated by Halbwachs and, more recently, by comprehensive sociology. Ultimately, we think that one more consideration is opportune. The concepts and metaphors proposed by social scientists, and which define contemporary American society—“solid capitalism”, “liquid capitalism”, “the commodity”, “rationalization”, “evanescence”, “individualization”, “de-individualization”, “deterritorialization”, “abstract space”, “privatization of the public”..., logically have a theoretical and abstract aspect. But when they are analyzed in skyscrapers, they

become empirical, evidently not in a quantitative but in a qualitative way, without forgetting that they take shape, materialize, visualize, formalize, and, in short, become objective and symbolic social facts precisely in these buildings and the spaces they construct.

As has been shown, this article has analyzed the skyscrapers of Chicago and New York, which represent the American individualist capitalist system, in its evolution from the first to the second modernity. Not surprisingly, individuals primarily drive these high-rise buildings: entrepreneurs, builders, and speculators, as well as by the ego of prestigious architects, and secondarily through the legislation of the cities.

In future research—some of which is already underway—we will try to see how this skyscraper model has spread to other North American cities and throughout the Western, South American, African, Oceanian, and Asian worlds. In particular, we will look at China, the country that is currently building the largest number of skyscrapers, the tallest and most technologically advanced. The starting hypothesis is that China—Beijing, Shanghai...—formally and systematically copies the American model, but not in its deeply Protestant and neoliberal ideology. Thus, these buildings are no longer so much an image of individualistic capitalism as the expression of the country’s quest for westernization and modernization, as well as the establishment of a type of capitalism that some authors call “Maoist”. In this respect, the central and city governments have become the main promoters of these high-rise towers, seeing in them the mark of city and national pride, i.e., the living image of economic and technological development, which places them in the modern global world, and of the political success of their governments.

Author contributions

JARC and AECP carried out the investigation jointly and reviewed the drafts. Both authors read and approved the final manuscript.

Declarations

Competing interests

The authors declare that they have no competing interests.

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References

Abbott JR (2000) Louis Sullivan, architectural modernism, and the creation of democratic space. *Am Sociol* 31(1):62–85

- Al-Kodmany K, Ali MM, Zhang T (2013) Importing urban giants: re-imagining Shanghai and Dubai with skyscrapers. *ArchNet-IJAR Int J Archit Res* 7(2):22
- Álvarez Garreta A (2001) *Rascacielos*. Atrium Internacional, Barcelona
- Arendt H (2005) *Sobre la revolución*. Alianza, Madrid. English edition: Arendt H (1963) *On revolution* (trans. Bravo P). Viking Press, New York
- Augé M (1995) *Los no-lugares*. Gedisa, Barcelona. English edition: Augé M (2009) *The "non-places"* (trans. Howe J). Verso, London
- Barr J (2010) *Skyscrapers and the skyline: Manhattan, 1895–2004*. *Real Estate Econ* 38(3):567–597
- Baudrillard J (1972) *Pour une critique de l'économie politique du signe*. Gallimard, Paris. English edition: Baudrillard J (1981) *For a critique of the political economy of the sign* (Levin CH). Telos Pres, London
- Baudrillard J (1987) *América*. Anagrama, Barcelona. English edition: Baudrillard J (1989) *America* (Turner CH). Verso, London
- Baudrillard J (1992) *Cultura y simulacro*. Kairós, Barcelona. English edition: Baudrillard J (1988) *Simulacra and simulation* (Glaser SH). University of Michigan Press, Ann Arbor
- Bauman Z (2003) *Modernidad líquida*. FCE, Buenos Aires. English edition: Bauman Z (2000) *Liquid Modernity*. Polity, Cambridge
- Bell D (1987) *Las contradicciones culturales del capitalismo*. Alianza, Madrid. English edition: Bell D (1976) *The cultural contradictions of capitalism*. Basic Books, New York
- Bellah RN et al (1989) *Hábitos del corazón*. Alianza, Madrid. English edition: Bellah RN (1985) *Habits of the heart*. University of California Press, Berkeley
- BeltránVillalba M (2016) *Dramaturgia y hermenéutica: para entender la realidad social*. Centro de Investigaciones Sociológicas, Madrid
- Benjamin W (1973) *Poetry and capitalism*. *Illuminations II*. Taurus, Madrid
- Benjamin W (1998) *Poesía y Capitalismo*. *Illuminaciones II*. Taurus, Madrid. English edition: Benjamin W (1999) *Paris: capital of the 19th century in Arcades Project*. Cambridge
- Benjamin W (2014) *Capitalismo como religión seguido de fragmento teológico-político*. La Llama, Madrid. <https://tinyurl.com/y2krpdsz>. Accessed 06 Jan 2022. English edition: Benjamin W (2004) *Capitalism as religion*. In: Bullock M, Jennings MW (eds). *Selected writings*, vol 1, 1913–1926 (trans. of selections from Benjamin W, *Gesammelte Schriften, unter Mitwirkung von Theodor W. Adorno und Gershom Scholem, herausgegeben von Rolf Tiedemann und Hermann Schweppenhäuser*). Harvard University Press, Cambridge
- Berman M (1988) *Todo lo sólido se desvanece en el aire*. La experiencia de la modernidad. Siglo XXI, Madrid. English edition: Berman M (1982) *All that is solid melts into air*. Simon and Shuster, New York
- Boils Morales G (2003) *Building Chicago-suburban developers and the creation of a divided metropolis*. *Rev Mex Sociol* 65:476–480
- Boltanski L, Chapiello É (2002) *El nuevo espíritu del capitalismo*. Akal, Madrid. English edition: Boltanski L, Chapiello É (2005) *Le new spirit of capitalism* (trans. Elliott G). Verso, London
- Bova B (2004) *Historia de la luz*. Espasa Calpe, Madrid. English edition: Bova B (2002) *The story of light*. Sourcebooks, Inc., Chicago
- Cabas M (2011) *Skyscrapers and their typological evolution*. *Architecture module-CUC*: 204–214
- Calinescu M (1991) *Cinco caras de la Modernidad*. Modernismo, vanguardia, decadencia, kitsch, posmodernismo. Tecnos, Madrid. English edition: Calinescu M (1987) *Five faces of modernity: Modernism, avant-garde, decadence, kitsch, postmodernism*. Duke University Press, Durham
- Cassirer E (1975) *Antropología filosófica*. FCE, Mexico. English edition: Cassirer E (1967) *Essay on man*. Yale University Press, New Haven
- Castells M (2014) *La cuestión urbana*. CIS, Madrid
- Castro Nogueira LA (1996) *La risa del espacio*. El imaginario espacio-temporal en la cultura contemporánea. Tecnos, Madrid
- Connor S (1996) *Cultura Postmoderna*. Introducción a las teorías de la contemporaneidad. Akal, Madrid. English edition: Connor S (1997) *Postmodernist Culture: An Introduction to Theories of the Contemporary*. Wiley-Blackwell, London
- De Stefani P (n.d.) *El espacio abstracto, o la mercancía como espacio*. https://d1wqtxs1xzle7.cloudfront.net/64049784/El_espacio_abstracto__o_la_mercancia_como_espacio_-_Patricio_De_Stefani-with-cover-page-v2.pdf?Expires=1656272246&Signature=TnudtXqxhIQZFPbTGwEV~5gKeGzjL4KHMi-te3tATVI~3usmqQXYbK1XOJkBYBj5mXKDFo4fygP1Wr~xjuOYL8EqEvkAvpMlewqzBPS-4MEiyJ9crTqauwmkw85b
- HUQ1Mwjtgq6fr9qf03yumatBqmZZdzD1VE-f7Xxc5r4T934myjcqazAEed70c7vnTdmjLz2NUIHuWekND5vrlrUtzuoFFqmNH-3c4kHmPeFI AeX58RMU6jbc5qQ8HsW59nKsRNDM3kL4sSMRzJX-5-sxSGU~h55neIcC3T7YIcKkRQtRjoNze4Izkf5p47qSfT3F8hZQs3sdU5rI-MPA__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA. Consultado el June 26 2022
- de Tocqueville A (1980) *La democracia en América*. Alianza, Madrid, vol. 2. English edition: de Tocqueville A (2002) *Democracy in America* (trans. Reeve H). The Pennsylvania State University, State College
- Debord G (1999) *La sociedad del espectáculo*. Pre-Textos, Valencia. English edition: Debord G (2006) *The society of the spectacle* (trans. Nicholson-Smith D). Zone Books, New York
- Debord G (2003) *La sociedad del espectáculo*. Pre-Textos, Valencia. English edition: Debord G (2003) *The society of the spectacle*. Zone Books, New York
- Deleuze G, Guattari F (1994) *Mil Mesetas*. Capitalismo y esquizofrenia. Pre-Textos, Valencia. English edition: Deleuze G, Guattari F (1987) *Thousand plateaus*. Capitalism and schizophrenia (trans. Massumi B). University of Minnesota Press, Minneapolis
- Domínguez Monedero AJ (1997) *Tyranny and art in archaic Greece*. In: Domínguez AJ, Monedero AJ, Sánchez Fernández C (eds) *Arte y Poder en el Mundo Antiguo*. Ediciones Clásicas-Universidad Autónoma, Madrid, pp 81–126
- Dupré J (2005) *Rascacielos*. Könemann, Barcelona. English edition: Dupré J (2013) *Skyscrapers: A History of the World's Most Extraordinary Buildings - Revised and Updated*. Black Dog & Leventhal, New York
- Durand G (1971) *La imaginación simbólica*. Amorrortu, Buenos Aires. Edition en français: Durand G (1964) *L'Imagination symbolique*. *Les Etudes Philosophiques*, 19(3)
- Durkheim E (2004) *El suicidio*. Estudio de sociología. Losada, Madrid. English edition: Durkheim É (1951) *Suicide: a study in sociology* (trans. Spaulding JA, Simpson G). The Free Press, New York
- Eichner M, Ivanova Z (2018) *Socioecological aspects of high-rise construction*. In: E3S web of conference, vol 33, pp 1–9. <https://doi.org/10.1051/e3sconf/20183303065>
- Fernández Alba A (s.a) *Delito y estuco*. Las mariposas del Rockefeller Center (a modo de fábula). In: *Más allá del Posmoderno*. Crítica a la arquitectura reciente. Gustavo Gili, México
- Fiol Costa C (2007) *Reticules i diagonals: el Pla Jaussey de Barcelona de 1907 i el Pla Burnham de Chicago de 1909*. Ph.D. Thesis, Universitat Politècnica de Catalunya
- Galbraith JK (1984) *La era de la incertidumbre*. Plaza & Janés, Barcelona. English edition: Galbraith JK (1977) *The age of uncertainty (a history of economic ideas and their consequences)*. Houghton Mifflin Harcourt, Illinois
- García Canclini N (1997) *Imaginarios urbanos*. Editorial Universitaria, Buenos Aires
- González García JM (1992) *Las huellas de Fausto*. La herencia de Goethe en la Sociología de Max Weber. Tecnos, Madrid
- González García JM (1998) *Sociología e iconología*. *Revista Española de Investigaciones Sociológicas* 84:23–43
- Gravano A, Herrán C, Guber R, Garalza B (2016) *Antropología de lo urbano*. Lom, Santiago de Chile
- Greenwood R, Diaz AM, Xiao Li S, Lorente JC (2010) *The multiplicity of institutional logics and the heterogeneity of organizational responses*. *Organ Sci* 21:5221–5539
- Grondin J (2014) *A la escucha del sentido*. Conversaciones con Marc-Antoine Vallee. Herder, Barcelona
- Halbwachs M (2011) *La memoria colectiva*. Miño y Dávila, Buenos Aires. English edition: Halbwachs M (1992) *On collective memory* (trans. Coser L). University of Chicago, Chicago
- Hancock J (1980) *The apartment house in urban America*. In: King AD (ed) *Building and society*. Routledge & Kegan, London
- Harvey D (1998) *La condición de la posmodernidad*. Investigación sobre los orígenes del cambio cultural. Amorrortu, Buenos Aires. English edition: Harvey D (1990) *The condition of postmodernity*. An enquiry into the origins of cultural change. Basil Blackwell Ltd., Oxford
- Heilbroner R, Milberg W (1999) *La evolución de la sociedad económica*. Prentice May, Mexico. English edition: Heilbroner R, Milberg W (1963) *The making of economic society*. Pearson, London
- Höweler E (2003) *Skyscraper*. Designs of the recent past and for the near future. Thames & Hudson, London
- Hughes R (2000) *El impacto de lo nuevo*. El arte en el siglo XX. Galaxia Gutenberg-Círculo de Lectores, Barcelona. English edition: Hughes

- R (1991) *The shock of the new. Art in the 20th century.* Thames and Hudson Ltd., London
- Huxtable AL (1988) *El Rascacielos. La búsqueda de un estilo.* Nerea, Madrid. English edition: Huxtable AL (1985) *The tall building artistically reconsidered: the search for a skyscraper style.* Random House USA Inc, New York
- Jacobs J (2011) *Muerte y vida de las grandes ciudades.* Capitán Swing, Madrid. English edition: Jacobs J (1961) *The death and life in great American cities.* Random House, New York
- Jameson F (1984) *Postmodernism, or the cultural logic of late capitalism.* *New Left Rev* 146:53–93
- Jameson F (1996) *Teoría de la postmodernidad.* Trotta, Madrid. English edition: Jameson F (1991) *Postmodernism, or, the cultural logic of late capitalism.* Verso, London
- Jang S (2012) *Exquisite Corpse. A tower for the public in the era of exhausted modernity.* Massachusetts Institute of Technology, pp 09–40
- Jencks C (1984) *El lenguaje de la arquitectura posmoderna.* Gustavo Gili, Barcelona. English edition: Jencks C (1984) *The language of postmodern architecture.* Rizzoli, New York
- Kumar K, Makarova E (2008) *The portable home: the domestication of public space.* *Social Theory* 26(4):324–343
- Lasch CH (1999) *La cultura del narcisismo.* Andrés Bello, Barcelona. English edition: Lasch CH (1979) *The culture of narcissism: American life in an age of diminishing expectations.* Norton, New York
- Lefebvre H (1971) *De lo rural a lo urbano.* Península, Barcelona
- Lefebvre H (1974) *La Producción Del Espacio.* *Papers* 3:219–229
- Lefebvre H (2013) *La producción del espacio.* Capitán Swing, Madrid. English edition: Lefebvre H (1991) *The production of space.* Basil, Oxford
- López Rangel R (s.a.) *El posmoderno arquitectónico, ¿gran pastiche?. In: Fernández Alba A, González Romero D, y López Rangel R (y otros), Más allá del posmoderno. Críticas a la arquitectura reciente.* Gustavo Gili, México
- Luhmann N (2009) *¿Cómo es posible el orden social?.* Herder, Barcelona
- Marx K (2014) *El Capital, vol 1.* FCE, Mexico. English edition: Marx K. (1976) *Capital* (trans. Fowkes B), vol 1. Penguin Classics, New York
- McBrien JP (2004) *Pocket Guide to Chicago Architecture.* W.W. Norton & Company, New York
- Mory P (2012) *The springtime of skyscrapers, Chicago versus New York, 1850–1919.* In: *Towers and skyscrapers. From Babel to Dubai.* *Obra Social La Caixa*, Barcelona
- Mumford L (1961) *La ciudad en la historia.* Infinito, Buenos Aires. Mumford L (1968) *The city in history: its origins, its transformations, and its prospects.* Harcourt Brace International, New York
- Mumford L (1979) *La ciudad en la historia.* Infinito, Buenos Aires. English edition: Mumford L (1961) *The city in the history.* Houghton Mifflin Harcourt, New York
- Muñoz B (2001) *Reflexiones sobre la sociología de la cultura y la música en el trabajo de Max Weber: un análisis crítico.* *Sociedad y Utopía. Revista De Ciencias Sociales* 18:92–99
- Noble DF (1999) *La Religión de la tecnología. La divinidad del hombre y el espíritu de invención.* Paidós, Barcelona. English edition: Noble DF (1999) *The religion of technology: the divinity of man and the spirit of invention.* Penguin Books, London
- Parker M (2002) *Utopia and the organizational imagination: outopia.* *Social Rev* 50(1suppl):1–8
- Parker M (2015) *Vertical capitalism: Skyscrapers and organization.* *Cult Organ* 21(3):217–234
- Polanyi K (1989) *La gran transformación.* La Piqueta, Madrid. English edition: Polanyi K (1944) *The great transformation.* Farrar & Rinehart, New York
- Ramírez-Ibarra R (2015) *Paisaje urbano y fragmentación en la ciudad.* *Bitácora* 25:123–130
- Ricoeur P (1982) *Finitud y culpabilidad.* Taurus, Madrid. English edition: Ricoeur P (1967) *The symbolism of evil* (trans. Buchanan E). Harper & Row, New York
- Rifkin J (2000) *The age of access: the new culture of hypercapitalism, where all of life is a paid-for experience.* Putnam Publishing, New York
- Ritzer G, Requena RDR (1993) *Teoría sociológica clásica.* McGraw-Hill, Madrid. English edition: Ritzer G, Steppinsky J (2020) *Classical sociological theory.* Sage Publications, Thousand Oaks
- Roche Cárcel JA (2007) *A la conquista de la tierra y del cielo: Rascacielos y poder tecno-económico.* *Política y Sociedad* 44(3):89–129
- Roche Cárcel JA (2009) *La sociedad evanescente.* Anthropos, Barcelona. English edition: Roche Cárcel JA (2013) *The vanishing society.* Logos Verlag, Berlin
- Roche Cárcel JA (2017) *Las escenografías urbanas de los rascacielos de Chicago o el dominio de la Naturaleza y de la Historia.* *Anthropos: cuadernos de cultura crítica y conocimiento* 248:129–149
- Roche Cárcel JA, Carretero AE (2020) *All solid things vanish into thin air. The space in modern and late modern plastic art.* *J Humanit Soc Sci* 14(1):1–26
- Sánchez Capdequi C (2004) *Las mascararas del dinero. El simbolismo social de la riqueza.* Anthropos, Barcelona
- Sansot P (1996) *Poétique de la ville.* Armand Colin, Paris
- Sassen S (1995) *The global city. An introduction to the concept and its history.* *Brown J World Aff* 11(2):27–43
- Schluchter W (1991) *Religion und Lebensführung.* Shurkamp, Frankfurt
- Sennett R (2004) *American cities: orthogonal plan and the protestant ethic.* *Bifurcations* 1:1–16
- Sennett R (2006) *La cultura del nuevo capitalismo.* Anagrama, Barcelona. English edition: Sennett R (2006) *The culture of the new capitalism.* Yale University Press, New Haven
- Sennett R (2008) *Capitalism and the city: globalization, flexibility, and indifference.* In: Kazepov Y (ed) *Cities of Europe: changing contexts, local arrangements, and the challenge to urban cohesion.* Blackbell, Oxford, pp 109–122
- Sennett R (2019) *Construir y habitar: ética para la ciudad.* Anagrama, Barcelona. English edition: Sennett R (2018) *Building and inhabiting: ethics for the city.* Farrar, Straus and Giroux, London
- Silva A (2006) *Imaginaris urbanos.* Tercer Mundo, Bogotá
- Spirito GP, Terranova A (2008) *New urban giants. The latest generation skyscrapers.* Librería Universitaria, Barcelona
- Stichweh D, Machirus J, Murphy S (2009) *New York. Skyscrapers.* Prestel, New York
- Sudjic D (2007) *La arquitectura del poder. Cómo los ricos y poderosos dan forma a nuestro mundo.* Ariel, Barcelona. English edition: Sudjic D (2006) *The Edifice Complex: The architecture of power.* Penguin, London
- Simmel G (1976) *Filosofía del dinero.* Instituto de Estudios Políticos, Madrid. English edition: Simmel G (2004) *The philosophy of money-3rd enlarged ed.* (trans. Frisby D, Bottomore T). Routledge, London
- Simmel G (1986) *Las grandes urbes y la vida del espíritu.* In: *El individuo y la libertad. Ensayos de crítica de la cultura.* Paidós, Barcelona. English edition: Simmel G (1971) *The metropolis of modern life.* In: Levine D (ed) *Simmel: on individuality and social forms.* University Press, Oxford
- Sombart W (1979) *El burgués. Contribución a la historia espiritual del hombre económico moderno.* Alianza, Madrid
- Tang B, Zeng D (2012) *Analysis on relationship between skyscrapers and tourist cities' space.* In: *2nd international conference on electronic & mechanical engineering and information technology*, September 2012. Atlantis Press
- Terranova A (2003) *Rascacielos.* Librería Universitaria, Barcelona
- Thornton M (2012) *Skyscrapers and business cycles.* Available at SSRN 2071293
- Tryggestad K, Georg S (2011) *How objects shape logics in construction.* *Cult Organ* 17(3):181–197
- Verdú V (1996) *El planeta americano.* Anagrama, Barcelona
- Vergara Vidal J (2017) *El edificio de la altura. Una revisión de las aproximaciones sociológicas para su estudio.* *Rev Urban* 37:1–19
- Venturi R (1992) *Complejidad y contradicción en arquitectura.* Gustavo Gili, Barcelona. English edition: Venturi R (1977) *Complexity and contradiction in architecture. museum of modern Art*, New York
- Venturi R (1998) *Aprendiendo de las vegas. El simbolismo olvidado de la forma arquitectónica.* Gustavo Gili, Barcelona. English edition: Venturi R (1977) *Learning from Vegas. The forgotten symbolism of architectural form.* Massachusetts Institute of Technology Press, Cambridge
- Weber M (1979) *La ética protestante y el espíritu del capitalismo.* Península, Barcelona. English edition: Weber M (1930) *The protestant ethic and the spirit of capitalism* (trans. Parsons T). Scribner, New York
- Weber M (2005) *Economía y sociedad.* FCE, Mexico. English edition: Weber M (1978) *Economy and society* (trans. Shils E, Rheinstein M). University of California Press, Berkeley
- Weber M (2006) *Conceptos sociológicos fundamentales.* Alianza, Madrid. English edition: Weber M (1962) *Basic concepts in sociology* (trans. Secher HP). Philosophical Library, New York

- Weber M (2007) *Sociología del poder. Los tipos de dominación*. Madrid: Alianza. English edition: Weber M (2016) *The types of legitimate domination*. In: *Social theory re-wired*. Routledge, pp 270–286
- Weber M (2012) *Sociología de la religión*. Ediciones Akal, Madrid. English edition: Weber M (1993) *The sociology of religion*. Beacon Press, Boston
- Wells M (2005) *Rascacielos. Las Torres del Siglo XXI*. H. Kliczkowski, Madrid. English edition: Wells M (2005) *Skyscrapers structure and design*. Laurence King, London
- Williams R (2001) *El campo y la ciudad*. Paidós, Barcelona. English edition: Williams R (1973) *The country and the city*. Oxford University Press, New York
- Willis C, Berenholtz R (2009) *New York Deco*. Welkome Books, New York
- Willis C (1995) *Form follows finance: skyscrapers and skylines in New York and Chicago*. Princeton Architectural Press
- Worringer W (1997) *Abstracción y naturaleza*. FCE, Mexico. English edition: Worringer W (1953) *Abstraction and empathy: essay in the psychology of style* (Bullock M). International Universities Press, New York
- Wright H (2008) *Skyscrapers. Imposing buildings rising into the sky*. Parragon: Bath
- Zhu J (1999) *Una arqueología de la arquitectura china contemporánea*. 2G: *Revista Internacional de Arquitectura* 10:90–7
- Zukin S (1988) *The postmodern debate over urban form*. *Theory Cult Soc* 5:431–446

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