

VISUAL SPACES OF CHANGE: UNVEILING THE PUBLICNESS OF URBAN SPACE THROUGH PHOTOGRAPHY AND IMAGE ISSN: 2183-8976 [PRINT] 2183-9468 [ONLINE] Volume 4, Issue 1 | Publication year: 2019 DOI 10.24840/2183-8976 2019-0004 0001 12

© SCOPIO EDITIONS

HOMEPAGE: <u>HTTPS://WWW.SOPHIAJOURNAL.NET</u>

ATLAS INTERACTIVE. VISUAL REGISTER OF URBAN ARCHITECTURE IN LATIN AMERICA. A WORK IN PROGRESS.

Cristina Gastón Guirao, PhD Architect

Abstract

Cartography is a manifestation of visual culture. In the beginning of the 21st century, the technology that provides access to digital maps allowing them to be associated with all types of data, has opened up innumerable possibilities, contributing a new reference framework to architectural culture. is article presents the project of a digital platform, Interactive Atlas | Visual Register of Urban Architecture | Latin America 1940-1970, in which the map is its central element. Its aim is to visually articulate a collection of photographic materials of exceptional quality linked to a digital mapping base. A compendium that brings together architectural works relevant for their urban insertion in the cities of Latin America, from the 1940s to the 1970s, while discovering the legacy of a number of photographers from the mid-twentieth that historiography has related until now.

Keywords: mapping, architectural photography, modern architecture, Latin America.

ATLAS INTERACTIVE. VISUAL REGISTER OF URBAN ARCHITECTUREIN LATIN AMERICA. A WORK IN PROGRESS.

Written by Cristina Gastón Guirao

Introduction

In the beginning of the 21st century, the technology that provides access to digital maps allowing them to be associated with all types of data, has opened up innumerable possibilities, contributing a new reference framework to architectural culture. Maps have to do with the way we represent ourselves in space and orient us in it: they are an instrument of knowledge with administrative and political aims, but also with profound aesthetic implications. This article presents the project of a digital platform, Interactive Atlas | Visual Register of Urban Architecture | Latin America 1940-1970 (https://click.upc.edu/maps/), in which the map is its central element. Its aim is to visually articulate a collection of photographic materials of exceptional quality linked to a digital mapping base¹. A compendium that brings together architectural works relevant for their urban insertion in the cities of Latin America, from the 1940s to the 1970s, while discovering the legacy of a number of photographers from the midtwentieth that historiography has relegated until now. Constellations of people, places, and events are revealed. e designed filters allow to discover intersections to that cannot be recognized in the linear format of a printed publication.

 $^{^{}m 1}$ Research Project Details. Title: Architecture, photography and city; geolocation and comparative study of the photographic records of modern architecture. Code: HAR2016-76583-R. National programme for Research, Development and Innovation aimed at the Challenges of Society. Ministry of Economy and Competitiveness. Main researcher: Cristina Gastón Guirao (Polytechnic University of Catalonia). Researchers: Carlos Labarta (University of Zaragoza), Juan Carlos Arnuncio (Polytechnic University of Madrid). Work team: Antonio Armesto, Andrea Parga, Maria Pia Fontana, Miguel Mayorga, Daniel García-Escudero, Berta Bardí. Argentina-Uruguay Correspondent: Pablo Frontini, Diego López de Haro. Brazil Correspondent: Nicolás Sica Palermo, Fernanda Aguirre. Caribbean Correspondent: Andrea Parga. Chile Correspondent: José Quintanilla. Colombia Correspondent: Maria Pia Fontana, Miguel Mayorga, Margarita Roa. Mexico Correspondent: Claudia Rueda, Eunice García. Venezuela Correspondent: María Fernanda Jaua. Design and website development: Jorge Rodríguez and Silvia Clavera (Corolari) Graphic design: Valeria Oyaga. Project Research Web: https://click.upc.edu/.

Brief cartographic note

Current digital cartography based on aerial photographs taken from satellites can seem to be much more realistic and objective than the previous one, but it is also a cultural elaboration, full of craft. In 2005, Google launched Google Maps. An initiative that completely changed cartography by revolutionizing our way of seeing, using and making maps. Its uses surpass by far those of general reference maps, with the help of the general use of internet and of the mobile devices that include all types of complementary functions. e application represented an urban setting in a way that had never been seen before: making varied views available – a satellite image, various types of hybrid maps that incorporate tags and symbols, three-dimensional effects, etc. Since then, the number of apps and geolocation systems of all types of data has multiplied endlessly.



CRISTINA GASTÓN GUIRAOFront cover Interactive Atlas.https: click.upc.edu/maps/ Capture screen, 2019.

The information provided serves both for artistic and scientific projects. For instance from one end, researchers of the University of Harvard and the Massachusetts Institute of Technology explore the dynamics of urban change with the intention of predicting the progress or decline of a sector of the city. They base their comparisons on pairs of Google Street View images, taken in the same place with a temporary margin of difference by an algorithm² From the other, Doug Rickard traces the secondary streets of the United States by Google Maps to notice new territories in a way that refers to the work of the famous documentary maker Walker Evans aesthetically³. Our work stands in a middle ground. Open Street Map, an online service of geographic information of open and editable use, created almost on a par with Google Maps, is the cartographic base of our platform. It provides the information of the context of each architectonic reference and allows zooming up to see the detail of its contiguities or to verify its position with respect to the geography of the territory. The visualization style has been

² Nikhil Naika [et al.]. "Computer vision uncovers predictors of physical urban change". PNAS Early Edition. Nueva York: Edited by Jose A. Scheinkman,. New York: Columbia University, 2017. Doi: www.pnas.org/cgi/doi/10.1073/pnas.1619003114.

³ Rickard, Doug. A New American Picture Colonia: White Press, 2010.

personalised and the locations of the buildings are been improved at those points where the cartography was incomplete.

The front cover of each architectonic reference is linked to the map. It offers a simultaneous vision of two images, one from the time in previous period and the other from the present day. These images have been chosen considering their reciprocity in a careful curatorial task. These two firsts images open a sequence in the form of a carrousel that can be stopped independently, at the discretion of the observer, who can check the comparisons at the points of his interest. Filters for location, date, photographer or architect are available to explore the digital platform content. This way the map supports a digital photographic exhibition, a portrait of our visual culture.

In the paragraphs that follow, the significance is explained of the decisions adopted regarding the selection of architectural references, the documentary materials and the way of relating them in virtue of the designed browsability.

The choice of the temporal and geographic field

Although separated from each other, the cities of Latin America were founded a few years apart, and are united by their period of development and by common problems of the contemporary world transformation that integrate them into a global network. North to South: Ciudad de México, San Juan de Puerto Rico, Santo Domingo, Caracas, Bogotá, Lima, Sao Paulo, Rio de Janeiro, Montevideo, Buenos Aires and Santiago de Chile are included in this project⁴.

From the beginning of the decade of the 1940s and especially during the 1950s, these capitals underwent a period of unprecedented growth at the time of the greatest heyday of modern art and architecture. In 1955, Henry Russell Hitchcock, the art historian that made the first modern architecture report on Latin American continent, confessed to being amazed at the population growth of these cities, and the vitality of their economies that achieved a production ratio unparalleled in the Western world. Quantity and quality don't always go together, wrote Hitchcock, but in the majority of Latin American countries there are both⁵. However, in Latin America, the economic crises of the early 1970s showed cruelty, serious economic imbalances, poverty and political instability and hence the decline of urban centres as a result of structural problems in society. Onwards, these cities became emblems of problems such as economic inequality, insecurity, and the proliferation of informal settlements. The cumulative reasons of why cities emerge, grow or decline goes beyond the work of those who design and build them. The urban centres are the result of countless individual wills, of political expectations, or economic changes.

 $^{^4}$ At the moment, only Caracas, Bogotá and Puerto Rico are open to the public, progresively will be accessible the rest.

 $^{^{\}rm 5}$ Hitchcock, H.R. Latin American Architecture. New York: The Museum of Modern Art, 1955.



CRISTINA GASTÓN GUIRAO Interactive Atlas; https://click.upc.edu/maps/Capture screen, 2019.

For a city to decline depends on financial calculations, technological or government changes and may originate from multiple types of deficiencies: public transport, job losses or lack of infrastructures⁶.

In a way, the deterioration of cities has led to discredit modern architecture, which has since been criticized for its lack of urbanity. From then on the visual imaginary linked to the cities acquired a high political component: a photograph of the urban landscape proliferated in which the denunciation predominates. The city and its buildings served as a symbol to illustrate that fall: the capitalist failure. is is how an evolution can be seen from the celebration of the urban landscape of the cosmopolitan metropolis, such as Horacio Coppola's Buenos Aires, towards a critical aesthetic of poverty, or what has collapsed. Paolo Gasparini (1934-) exemplifies these evolution: from being the reference photographer of the best modern Caracas architecture - in late 50' and 60'- to adopt a critical position against the social conflict in these countries. In 1972,

⁶ Sudjic, Deyan. The language of cities. London: Penguin, 2017.

while he worked to illustrate the Damián Bayon's book Panorama de arquitectura en América Latina⁷, he was developing his personal project to report the poverty in the region, a work published under the title Para verte mejor, America Latina⁸. It is said that "modernist utopias have been confirmed and destroyed through the camera"9. This has dragged an unfair aftermath: the condemnation of modern architecture. This research aims to change that perception: giving architectural recognition and vindicating the urban value for the production of this period.

Nowadays, the photographer Leonardo Finotti (1977-) who contributed to the exhibition MoMA Latin America in Construction, promoted by MoMA in 2016, maintains a personal initiative of visual research on the legacy of modernity with the objective to make mid-century buildings appear "as fresh as when they were new". At this time, Finotti edited his own photobook, parallel to the MoMA catalog, compiling a hundred photographs not included in the exhibition¹⁰. The development of our map features the urban landscapes of the modernity in Latin American avoiding see the buildings as isolated facts and visualizes the multiple intellectual and artistic movements between the different geographical and cultural environments thanks to the photographic materials from different sources and their correspondences, connections and intersections.

The choice of the interventions

Between thirty to fifty examples per city have been chosen. The aim is to offer a sample of the urban modern city fabric whose contribution and validity is appreciable today, not pretending an exhaustive report. Located in central areas priority has been given to projects which are close to each other. Their interest lies in the character of the aggregation: the way of standing a building close to the next, the features of its contiguity. The aim is to reveal the multiple accepted subordinations: similarities, contacts, boundaries, engagements. All the references offer a good articulation with their neighbours and the public or private open spaces, in such a way that they collaborate to balance their surroundings. Some are interventions that are interwoven with the city fabric, others are territorial references due to their position, height or extension, or form more or less extensive complexes. The Simón Bolívar Centre, a project by Cipriano Domínguez, built between 1948-1954 in Caracas¹¹, can help to explain how the selected images guide us on the cartographic basis to reveal the form of urban articulation that, in this case, provides a complex system of latticed spaces. A pair of images- a vintage photograph, as the crow flies, by Leo Matiz and a current view, taken at street level, by Julio Mesa- provide the cover front. The photograph by Leo Matiz shows the lateral elevation in all its development. An intervention that occupies three blocks in the centre of the colonial urban mesh and has a strict symmetrical configuration with respect to its longitudinal axis, as can be seen in the map. The framing of the image seeks to consign the work with respect to other relevant urban episodes. In the first place,

⁷ Bayón, Damián y Paolo Gasparini. Panorámica de la arquitectura latinoamericana (Panorama of Latin American architecture). Barcelona: Editorial Blume/UNESCO, 1977.

⁸ Gasparini, Paolo. Para verte mejor América Latina (To see you better Latin America). México: Siglo XXI Editores, 1972.

⁹ Fabry, Alexis & María Wills (curators), Urbes Mutantes: Latin American Photography 1944-2013. Argentina, Bolivia, Brasil, Chile, Colombia, Cuba, Ecuador, México, Perú, Venezuela: Colección Leticia y Stanislas Poniatowski. Barcelona: RM Verlag; México, D.F.: Editorial RM, cop. 2013. Catalog of an exhibition of the Museum of Art of the Bank of the Republic (Bogotá), that took place during the months of February-May 2013.

 $^{^{}m 10}$ Finotti, Leonardo. A Collection of Latin American Modern Architecture. Zurich: Lars Müller Publishers, 2016.

¹¹ Referenced on our website -code CA17.

a leafy tree emerges that reveals the Plaza Bolívar –epicentre of the historic city-. The Federal Legislative Palace occupies over a complete block in the lower left corner. The roof of the cathedral appears in the lower right quadrant. The Residential Unit El Paraíso, Carlos Raúl Villanueva's project built between 1952- 1954¹² in the upper part of the image, is clearly visible at the foot of the hill that circumscribes the city. The vantage point of view that this photograph provides the details of the articulated profile of the whole: this reaches its highest height with the, to descend steeply to the west in a silhouette that denotes the studied arrangement of the singular volumes on the roofs.

Towards the east, at the base of the towers, a multi-level porch whose sinusoidal profile resembles the claws of a crab is advanced as a portico. The current photograph, which accompanies the previous one, is taken at street level according to a diagonal perspective that attenuates the symmetry of the whole and highlights the vigorous lines of the profiles of the canopy system at triple height before the tall bodies. The colour image reflects the vivid contrast in the chromatic approach of the materials, which allows to see the signs of deterioration in the coatings and accounts for the popular occupation of these spaces.



CRISTINA GASTÓN GUIRAO

Interactive Atlas; https://click.upc.edu/maps/Capture screen, 2019.

The former images of the carrousel discover other points of view, frames and degrees of approach to reveal different episodes of the rich complex of porches, squares, levels of public

-

¹² Referenced on our website -code CA08.

spaces. The diverse gazes of Myron Dmytrejchuk, Graziano Gasparini, Tomás José Sanabria or Hamilton Wrigth, among others, compiled on the Simón Bolívar centre allow us to discover the architectural resources used in the urban negotiations offered by this building.

On the selection and nature of the images

Photography represents a form of intellectual mediation and sensitive to the world in which the introduction of the digital technology imposes a profound change of paradigms, as well as a new commitment towards the relation both of the historic photos, as well as current ones. Through the compilation and selection of the graphic material associated with each site, while discovering the architecture, the legacy of a number of photographers from the mid-twentieth century that historiography has relegated until now is revealed. The images in black and white correspond to scans of negatives or printed copies of time kept in different public and private archives. They are historical documents that constitute a visual heritage of high aesthetic value in itself. The number of institutions that digitize its photographic and bibliographic collection and offers it in open access via internet increases day by day. This web application helps to disclose vast banks of disconnected images¹³. For current images, it has been preferred to resort to another category of visual material such as Google Street View remote captures using electronic devices from the images generated by online applications. This taking of images adapted to our on-line life, carried out by the members of the research team, imposes some limitations that paradoxically interest us. Without being photographs in the strict sense, their value comes from acting as elements of contrast.

They correspond to a virtual visit that seeks to show the building in its closest daily life, intensely contextualized with all the elements that make up the urban streetscape. In virtually inaccessible cities, which are becoming less, like Caracas, a collaborator -Julio Mesa in that case- made the contemporary report. The convention of the most commercial photography imposes a frame adjusted to the motive, but the most sensitive photographers avoid this treatment. As much for the images in time as for the present ones, the platform priority has been given to those whose framing allows the recognition of links between the building and its surroundings and that oriented us on the cartographic base. For this reason, outdoor images predominate sacrificing partial, detailed or interior images. Urban photographers or documentalists, like Leo Matiz, Domingo Ulloa, Juan Guzmán or Werner Haberkorn are welcomed and aerial flights provide material of our interest too.

Leo Matiz followed with his camera the urban development of Caracas and Bogotá and is well represented in the Atlas as his brother Armando Matiz, urban photographer of Bogota, is too¹⁴. The contrast of their depictions with respect to that of Paul Beer, disciplined architectural photographer, over the same project serves to increase the register of ways of seeing and extent our margins of sensitivity. Biographies of the authors, architects and photographers listing their work included in the platform are supplied. The pairs of images multiply the crossing of perspectives giving the eye the opportunity to train. The network of visual connections in combination with the map constitutes an active and sensitive tool for the verification of the

 $^{^{13}}$ To complete the vintage carrousel of CA 17 the Urban Photography Archive in Caracas, the National Library of Venezuela, the Nacional Museum of Architecture and the Elite magazine shared their photographic resources.

 $^{^{14}}$ See Polar Tower CA02, Olympic Stadium CA03.06, Monserrat Residence CA01at Caracas and Italian-French Bank BG08, Bogota Bank BG10-and Avianca Building BG02- at Bogotá.

forms of the city. The numerous points of intersection reveal the different visual attitudes and put into circulation new distracted energies behind the forms of appearance.

On the relation between photography and architecture

The key to the dynamic and fruitful interaction between photography and architecture should be sought in the active role of the observer during the process of receiving visual stimuli, a moment that is especially intense in the perception of the products of visual art. Although already known long ago by artists and philosophers of aesthetics, numerous studies on cognitive psychology carried out in the 1950s and 1960s confirm the constructive, not merely passive, dimension of the receptive process. A process that depends first and foremost on the attention of the observers, their expectations and their perceptive intentions not only on the external stimulus.

Ernest H. Gombrich (1909-2001) was a notable art historian who was interested in the psychology of visual perception so as to apply it to the problems of representation in art. In his book "Art and illusion" (1959), reprinted on numerous occasions, he develops the theme of the contribution of the receiver to decipher any type of representation, whether it is an image in perspective, pictorial or photographic. It is a meticulous work that quotes, questions or rejects numerous scientific studies: it brings examples of art from antiquity and ends up in the form of photography. Gombrich maintains the impossibility of clearly separating what we see from what we know: it is the force of expectation, more than that of conceptual knowledge, which shapes what we see in life, not less than in art. A fact that stands out when both factors conflict. On the other hand, the progress in "learning to see" goes from the indefinite to the defined, not from sensation to perception.

We do not learn to have perceptions, but to differentiate them. is is a theoretical model of approach that dates back to Kant: "all the cognitive processes already take on the form of perception, of thought, of memory representing hypotheses that the organism feels (...). The hypotheses demand responses in the form of some subsequent experience, responses that will confirm or disprove them" 15. That is to say, the expectation creates illusion.

 $^{^{15}}$ Gombrich, Ernst Hans. "Introduction: Psychology and the riddle of style", 38. Princeton: Princeton University Press, 1969.







CRISTINA GASTÓN GUIRAO

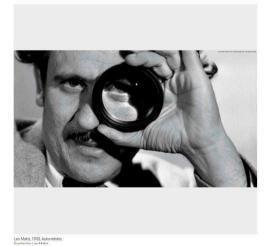
Interactive Atlas BG 08;

https: click.upc.edu/maps Capture screen, 2019.

CRISTINA GASTÓN GUIRAO

Comparison between Paul Beer and Leo Matiz photographs on Avianca Building; https: click.upc.edu/maps/.Capture screen, 2019.

Leo Matiz Aracataca 1917 - Romotá 1998



CRISTINA GASTÓN GUIRAO

Leo Matiz biography; https: click.upc.edu/maps/ Capture screen, 2019.

What we call interpreting an image, it could perhaps best be described as testing out its possibilities, checking out what fits and what doesn't. Perceptions therefore have a character essentially of prognosis, of anticipation. From what is stated above, it could be inferred that the architect's mental team predisposes, therefore, to certain verifications. The invention and generalization of the use of the camera, extended the means to represent the world around us, and with it, representation gained a new height of awareness of itself. In short, the artist knows how to see things more than the common observer.

Photographers, on looking through their cameras, construct, reorder and arouse links that correspond to a kind of "visual projection" ¹⁶, provoking relationships that stimulate the sensitivity of the architect. The architects are also skillful observers of spatial circumstances due to their training and occupation, with the ability and the opportunity to re-launch the perceptions registered by the photographer's towards new projections.

Conclusion: an operative visual heritage

Gathering and spreading the material of the photographic archives of twentieth century modern architecture at this time will serve to improve and facilitate the understanding of the built heritage and to open up channels in relation to the visual intellection that should accompany and illuminate the design of our buildings and cities from now on. Changes in the way of seeing bring changes in the way of knowing. The projection of the future of our natural and urban environments has more than ever to do with the capacity of visual discernment. The European and Anglo-Saxon photographic archives are being digitised and made available to the public; nevertheless, the archives of Latin American architecture are still largely dispersed, forgotten and neglected. Putting the focus on the Latin American context is especially appropriate to the general aims of the project. The gap that exists between the architectural modernity there, compared with Europe and the Anglo-Saxon world, allows us to study and explain better than in any other case, the impact of the image of the world of visual production of photography of international benchmarks on local architectural production in those countries. The project explores our protocols relating to the image of architecture and the city. The gathering of photographic materials linked to cartography helps in the recognition of distracted relationships and hidden links of the referenced works between them and with what surrounds them, in order to rediscover the architectural fact and its imagery in the light of geography and the urban context.

Addenda

Between the two long parallel wings of the Simon Bolivar centre, Miguel Braceli —architect and visual artist—displayed a collective performance with high plastic and dynamic qualities, its photographic depiction carefully planned. An aesthetic exploration that confirms the potential of this public space previously argued in the text. On the other hand, the architect Victor Enrich carried out another kind of visual project, based on virtual architectural rendering and the digital photomontage, placing the New Yorker Guggenheim Museum in the outskirts of Bogota, thanks to a sophisticated and refined virtual elaboration. Both proposals, related to Caracas and Bogota,

_

¹⁶ Basilico, Gabriele. "Arquitectos y fotografía, arquitectura y fotografía", Arquitecturas, ciudades, visiones. Reflexiones sobre la fotografía. ("Architects and photography, architecture and photography". Architectures, cities, visions. Reflections on photography). Madrid: La Fábrica Editorial, 2007.

presenting reality in another way, stimulate new appropriations of architecture and public spaces. Innovative artistic expressions and communication strategies, always based on the values of the inquisitive seeing.

Research project details

Title of the project: Architecture, photography and city: geolocation and comparative study of the photographic records of modern architecture.

Code: HAR2016-76583-R. National programme for Research, Development and Innovation aimed at the Challenges of Society. Ministry of Economy and Competitiveness.

Main researcher: Cristina Gastón Guirao (Polytechnic University of Catalonia)

Researchers: Carlos Labarta (University of Zaragoza), Juan Carlos Arnuncio (Polytechnic

University of Madrid).

Work team: Antonio Armesto, Andrea Parga, Maria Pia Fontana, Miguel Mayorga, Daniel García-

Escudero, Berta Bardí.

Argentina-Uruguay Correspondent: Pablo Frontini, Diego López de Haro.

Brazil Correspondent: Nicolás Sica Palermo, Fernanda Aguirre.

Caribbean Correspondent: Andrea Parga. Chile Correspondent: José Quintanilla.

Colombia Correspondent: Maria Pia Fontana, Miguel Mayorga, Margarita Roa.

Mexico Correspondent: Claudia Rueda, Eunice García. Venezuela Correspondent: María Fernanda Jaua.

Design and website development: Jorge Rodríguez and Silvia Clavera (Corolari)

Graphic design: Valeria Oyaga.

Project Research Web: https://click.upc.edu/

International Seminars on Modern Architecture and Photography_2015, 2016, 2017. At UPC

Commons: https://upcommons.upc.edu/handle/2117/96821

Bibliography

Basilico, Gabriele. "Arquitectos y fotografía, arquitectura y fotografía", Arquitecturas, ciudades, visiones. Reflexiones sobre la fotografía. ("Architects and photography, architecture and photography". Architectures, cities, visions. Reflections on photography). Madrid: La Fábrica Editorial, 2007.

Bayón, Damián y Paolo Gasparini. Panorámica de la arquitectura latinoamericana (Panorama of Latin American architecture). Barcelona: Editorial Blume/UNESCO, 1977.

Bergdoll, Barry [et al.]. Latin America in construction: architecture 1955-1980. New York: Museum of Modern Art, 2015. Finotti, Leonardo. A Collection of Latin American Modern Architecture. Zurich: Lars Müller Publishers, 2016.

Gasparini, Graziano and Juan Pedro Posani. Caracas a través de su arquitectura. (Caracas through its architecture). Caracas: Fundación Fina Gómez, 1969.

Gasparini, Paolo. Para verte mejor América Latina (To see you better Latin America). México: Siglo XXI Editores, 1972.

Gastón Guirao, Cristina. "Sobre la pista de los fotógrafos de arquitectura moderna en América Latina". Inter photo arch: congreso internacional Inter: fotografia y arquitectura: interacciones. (On the track of the photographers of modern architecture in Latin America). Pamplona: Publication service of the University of Navarra, 2016. p. 92- 103. http://hdl.handle.net/10171/42251.

Gombrich, Ernst Hans. "Introduction: Psychology and the riddle of style", p. 38. Princeton: Princeton University Press, 1969.

Gombrich, E.H. Art and illusion: a study in the psychology of pictorial representation. Princeton: Princeton University Press, Second Edition, 1969.

Fabry, Alexis & María Wills (curators), Urbes Mutantes: Latin American Photography 1944-2013. Argentina, Bolivia, Brasil, Chile, Colombia, Cuba, Ecuador, México, Perú, Venezuela: Colección Leticia y Stanislas Poniatowski. Barcelona: RM Verlag; México, D.F.: Editorial RM, cop. 2013.

Hessler, John. "Joining the world in an image". Map. Exploring the world. London, New York: Phaidon Press, 2015 Hitchcock, H.R. Latin American Architecture. New York: e Museum of Modern Art, 1955

Nikhil Naika [et al.]. "Computer vision uncovers predictors of physical urban change". PNAS Early Edition. Nueva York: Edited by Jose A. Scheinkman,. New York: Columbia University, 2017. Doi: www.pnas.org/cgi/doi/10.1073/pnas.1619003114.

Rickard, Doug. A New American Picture Colonia: White Press, 2010.

Sudjic, Deyan. e language of cities. London: Penguin, 2017.

Téllez Tavera, Andrés. Imágenes de modernidad. Ciudad, bienestar y construcción en la fotografía de arquitectura en Chile, 1930- 1970. (Images of modernity. City, welfare and construction in architectural photography in Chile, 1930-1970). Doctoral thesis presented at the Pontificia Universidad Católica de Chile, 2016.