STUMPP, Monika Maria; BRAGA, Gisele Pinna; MACEDO, Fernando. **Contemporary Architecture Portfolio: Jacobsen Arquitetura Case Study** *Thésis*, Rio de Janeiro, v. 2, n. 3, p. 11-33, jan./oct. 2017

submission date: 14/10/2016
acceptance date: 25/04/2017

Contemporary Architecture Portfolio: Jacobsen Arquitetura Case Study

Monika Maria Stumpp, Gisele Pinna Braga, Fernando Macedo

Monika Maria Stumpp é doutora em Arquitetura; Professora FAU UFRGS; monistumpp@hotmail.com

Gisele Pinna Braga é doutora em Arquitetura e Urbanismo; Professora Universidade Positivo; gbraga@up.edu.br

Fernando Macedo é acadêmico de Arquitetura; Universidade Positivo; fernandomcdo@gmail.com

Abstract
Photography is historically used to display architectural works to distant audience. Digital media, mainly the Internet, have expanded the distribution of images, especially through the websites of architecture offices, which found a handy tool for the dissemination of its portfolio. The perception of the resulting image from the photographic registration technique varies depending on the means it is presented, either digital or analogical. This finding led the investigation presented in this article: How architecture design companies present photographic images to promote their work through electronic portfolios? Is there any strategy that prevails? These questions inspired a research that analyses the architectural photographs digitally presented by Brazilian contemporary architecture offices. The goal is to build a diagnosis of the use of photography on their website by identifying recurrent strategies and techniques. This article presents the examination of photographic images displayed in the Jacobsen Architecture office site, which is relevant in the contemporary Brazilian scene. Procedures consisted of bibliographical and documentary researches, followed by analysis. The literature was addressed to the architectural photography. The documentary research explored all the photographs available on the office's website, totalling 418. It was established 25 objective parameters, which were recognized in each image, and the data were tabulated. The operation of the entire universe of data allowed the statistical and comparative analysis. The result identifies the most common practices and the nature of the photographic image from that office.

Keywords: Architectural Photography, Website, Contemporary Architecture.

Introduction

Throughout history, photography had always been used to show architectural works to distant audiences. However, the physical condition of printed publications limited access to them.

> Since the official announcement of the invention of photography in 1839, architecture has been one of the main themes of the new apparatus. In addition to the wide circulation of architectural images of tourism through periodicals, albums and postcards, throughout the 19th century, photographs documented major urban reforms carried out in cities such as in Paris, also recording the streets and buildings that disappeared with the transformations (Espada, 2012).

Digital media, especially the internet, has expanded the distribution of images, now with no geographical boundaries. Specialized periodicals began to coexist with offices' websites, which were discovered as an unexpensive tool for the dissemination of their work. Both medias essentially use photography as a resource to register, represent and communicate their work (Vieira, 2012).

The presentation in digital media has some peculiarities: the screen's luminosity stimulates more the optical nerves than the reflected light on the paper; the variable size of the images influences the portion they occupy in the visual field; the image resolution determines the ability to perceive details; the zoom allows zooming to the area of interest, among others. Thus, although the registration technique is unique, the characteristics of the means of disclosure modify the perception of the photographic image.

From the acknowledgment of these differences, comes the questioning: how these images have been used by architectural firms to disclose their works? Is there any predominant communication strategy? Based on these questions, comes up a research that analyzes the photographs digitally presented by contemporary Brazilian architecture offices. It also aims to construct a diagnosis of the use of photography in their portfolios.

The study presented here is part of a research that analyzes the material of 25 offices elected, in 2010, as the "new generation of Brazilian architecture" (Editora PINI, 2010). The major research intends to identify the main representation and communication strategies used by these offices, providing subsidies for the reflection on today's architect's work and their undergraduate education (https://www.ufrgs.br/representacaograficaarq/).

The study described in this article specifically explored photographic images presented on the Jacobsen Arquitetura office website, an office of that group with wide production in the contemporary Brazilian scenario. The search was to identify strategies and recurring techniques that represent the photography of that office.

The procedures consisted in bibliographical and documentary research, followed by analysis. The bibliographical research approached architecture photography. The documentary research explored the photographic images available on the office's website. Twenty-five objective parameters were considered to analyze each image and the data was tabulated.

The results show the data for all photographs of that website, totalizing 418 images. The collection of data allows its statistical and comparative analysis.

The resulting analysis characterizes the photographic image and verifies the similarities and differences of the production of images in different techniques.

The Jacobsen Office's Architecture Portfolio Photography

Architecture offices use several tools and modes of representation to present their work to society. Among them there is architecture photography, which appears in Cattani's taxonomy (2011) in the category of two-dimensional images.

> To be classified as a tool of representation, architectural photography must have the 'intention' to grasp an attribute, something of the architectural entity, although it is not obvious what one wanted to show and if it has to be clarified with a subtitle. Architecture photography, as well as the architectural plan, are means of representation, presentation, and communication, and so they must have something to say (Vieira, 2012, 327).

All the photographs on the Jacobsen Arquitetura office's website fall within this classification, since they show the buildings related to the presented projects. Thus, the study of the photographic images of that website refers to the architecture photographs of the office, which reflect the way the office chose to showcase itself and explain its projects.

Architecture photography is classified as an specific type of photographic record (Vieira, 2012), which, according to Shulman (2000), has always had two fundamental purposes:

> The first is to create an image that is itself a piece of art and does not depend primarily on the subject; the elements of this type of photography are close to those of a painting. The second purpose is to convey a message on the subject. This message can be a clarification, a simplification or an illustration. (...) In this second purpose, which is to carry a message, photography is a means of communication and it is with this function that we are primarily concerned here (Shulman, 2000, p.1).

The second purpose, especially present in this study, implies that intentions of communication were considered in the act of photographing. It is then possible to assume that this intention stems from strategic technical decisions, which are taken by architectural photographers to communicate the desired message.

The architecture photographer João Alberto Fonseca da Silva reports such indication:

> whenever possible, go out to photograph architecture on days with strong sun and clouds, those large and scattered that are constantly moving with the wind. In addition to providing more dramatic and deep skies, unlike the 'sky of brigadeiro' (sky without clouds), their movement allows several different situations of light on the same day, at the same time. They also serve as hitters, illuminating shadow areas (Vieira, 2012, p.109).

Other arguments consider the compositional decisions linked to the intentions of communication:

> There is also an important question about the horizon line. When placed in the middle of the photograph, results in a monotonous photograph. Exploring the horizon line placement aligned with the imaginary lines of the horizontal thirds or above and below them results in more dramatic photographs and with greater visual impact (Vieira, 2012, p. 207).

Due to this fact, the analysis of the technical aspects of images can indicate recurrences that point to communication intentions.

Regarding the effects of the architecture offices' website images, some variables should be considered, which are presented below.

The photographer's influence

Besides the photography there is the photographer, with his/her looks and points of view. According to Fernando de Tacca (2012, p.80), "the photographer has always been a free individual, a traveler, flâneur, [...] who longs not to live enclosed in rigid productive norms" (Tacca apud Quinto, 2012).

The architecture photographer presents in his/her images a personal mark, especially because the act of photographing is an action that involves subjective choices, conditioned to communication goals. The decisions are susceptible to interpretations and vulnerable to the artistic sensitivity of those who do it. Quinto (2012) explains that "because it is a visual intermediary, the professional also filters and alters the reality to be shown, in the sense that he chooses what, how and when to photograph" (Quinto, 2012, p.72).

Regardless of the generating motive, the recurring decisions may imply the consolidation of the professional's photograph character. Since the decisions of the photographic act necessarily envolves technical choices, understanding them contributes to the comprehension of the studied images.

In the Jacobsen Arquitetura case, the office's career was portrayed by the lenses of few photographers, among them Leonardo Finotti, a Brazilian architect and photographer, collaborator of the book Claudio Bernardes & Paulo Jacobsen (Editora Capivara, 2009). "Finotti has already documented several important works designed in Brazil, Portugal and Latin America, which are constantly linked in various means of architecture" (Delaqua, 2012). He has been a kind of official photographer of the office, being the author of almost 60% of the photos displayed on the office's website, at the time of this study.

According to Finotti (2012), one of the positive sides to being an "architecture photographer" is that you are in constant contact with architects who improve your impressions when you are closer. However, it is very difficult to expose all the distinct aspects and qualities united in only one architect (...) "(Delaqua, 2012).

Adjusting the images for the website

The production of a website implies the structuring and organization of graphic and textual information. Such a procedure presupposes the determination of technical standards, for example, the proportion of the image, which requires a caveat in this study.

> Content manipulation, editing, and remixing techniques are embedded in the assembly of digital designs and should be considered from the outset. [...] The development of a digital project requires specific knowledge of hypermedia language, color pattern, correct image manipulation, and other visual symbols, the files sizes available for download, size, resolution, format (image, vector, code), among other concepts

> of interactivity, design structure, digital communication and the creation of different visual effects compatible with production for new technologies (Toledo Fº e Moraes Jr, 2010, p. 136).

Regarding the character analysis of the office's portfolio image, this fact has no impact. The analysis of authorship must, however, be relativized by the fact that the appearance of the photographic image is subject to transformations for publication in different platforms.

The Office's Market Positioning

According to the interpretation of marketing principles by the American Institute of Architects (2011), the concept of market positioning applied in architecture refers to the strategies of an office to act in a specific target market. In the construction of these strategies, there are decisions about how to present the company to the market and how to differentiate it from its competitors.

An office's website is included in the company's communication strategy. Consequently, what is presented impacts the understanding of its positioning.

Thus, it is possible to deduce that the chosen projects and the character of the images presented in the website reflect the office's positioning intention. Regardless of who produced the photographs, the set presented summarizes what the office wants to publicize about their works, considering its strategy.

The Jacobsen Arquitetura office has a three-generation tradition in the Brazilian scenario, and is currently constituted by the architects Paulo Jacobsen and Bernardo Jacobsen, father and son.

Paulo Jacobsen (Rio de Janeiro, 1954) graduated in 1975 from Bennett University. In the 1970s, from the partnership with Cláudio Bernardes (son of the architect Sérgio Bernardes), it came up the Cláudio Bernardes & Jacobsen Architecture (http://www.jacobsenarquitetura.com/pagina/?CodSecao=6).

After the death of Cláudio Bernardes, in 2001, Jacobsen initiated the new office, associating with Thiago Bernardes, son of Cláudio. In 2012, the office went through a new reformulation: Thiago Bernardes left the office, and Jacobsen Arquitetura began its activities, having as partners Paulo Jacobsen, Bernardo Jacobsen and Eza Viegas. Currently, the office employs

around 20 architects, in the headquarters of São Paulo and Rio de Janeiro, and develops projects throughout Brazil and abroad.

With a history spanning three generations, it brings in its portfolio approximately one thousand projects, among restaurants, shops, residences, offices, companies, luxury condominiums, resorts, etc.

Costa, Picolli and Caon (2015) commented that the office's production in recent years, mainly in the period between 2001 and 2010, gained prominence by incorporating different generations, causing that their works, potentially, incorporated Brazilian and contemporary innovations, either through the architectural programs nature, or through the formal language, techniques and materials employed.

By this way, the office becomes one of the main offices in the Brazilian contemporary scenario. This fact was confirmed by the election, in 2010, by a group of architecture critics, as one of the 25 Brazilian offices of the "new generation of Brazilian architecture".

Recognized by the magazine Architecture Digest in 2002 as one of the world's 100 most important architects, Jacobsen had the opportunity, in 2009, to be part of Rio de Janeiro Arts Museu's design, an important architectonic work in the capital of Rio de Janeiro.

Taking into account the office's strong presence in the contemporary Brazilian scenario and identifying the photographic image as an important way of publicizing the office's work, the need to know its characteristics to understand the character of the photographic image presented on the JA website came up.

Procedures

The procedures comprised bibliographical and documentary research, followed by analysis. The bibliographical research dealt with architecture photography and the documentary research explored the photographic images available on the office`s website.

It were established 25 objective parameters which were evaluated in each image (Table 1). The data were tabulated by observing the images on a Desktop computer. For each parameter, the subcategories, presented in Table 1, were determined.

Category	Quantity	Tabbed items
Project`s characterization	4	Project`s ID, year, use classification (residential, commercial, cultural, institutional) and type of client (particular ou contest).
Graphic technique	2	Color gradation (PB, shades of gray, sepia or color); type of representation (conventional or interactive).
Llight`s characterization	2	Daylight time (daylight, night or nightlight); type of light represented (natural, artificial or no effect).
Composition	6	Image proportion, orientation (portrait or landscape); (centralized or decentralized) and observer position (lateral angulation, angle of elevation and viewing height).
Content	3	Environment (internal or external), presented content (total or partial), verification of context presentation.
Humanization	5	Human figures with quantification, vegetation, vehicles, furniture or urban furniture and animals.
Strategy	2	Relationship between the positioning of human figures and buildings, lighting strategy to direct the look.
Authorship	1	Photographer`s identification

TABLE 1
Tabulated parameters for each image
Source: Authors, 2016

From the items in Table 1, lateral angulation and vertical angulation followed criteria according to the scheme presented in Figure 1.

The database created allowed the accounting, the creating of graphics and the consequent initial analysis, which indicated ways for a complementary analysis of possible relationships between the mapped items.

From the general results, some questions were sketched: is there a pattern in the presentation of buildings by photographs over the years? Is there any relationship between content and presentation aspects? The results that can answer such questions are illustrated in the complementary results.

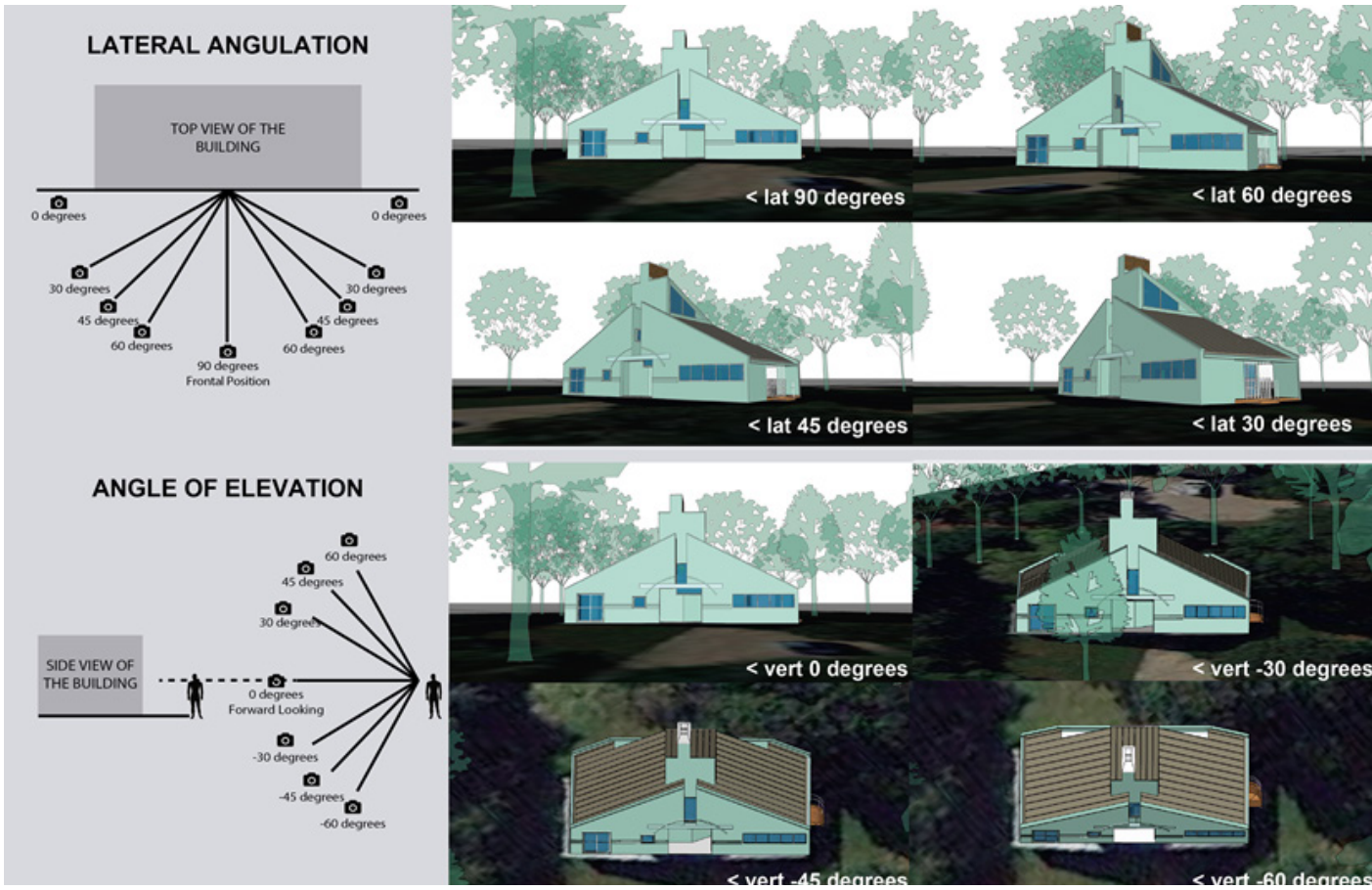

Figure 1
Illustration on lateral angulation and angle of elevation
Source: Braga and Stumpp, 2015.

The general results and those that show relationships between data are presented below.

Results

Among all the images that present architecture in its three-dimensional aspect, listed on the office's web-site, photographs correspond to 90% of the material exposed, which makes photography the major choice used to publicize the office's portfolio.

Intending to characterize the presented photographs on the website, the aspects shown in Table 1 were mapped. The results are described below.

About the characterization of projects

The graphic inserted in Figure 2 shows the number of projects available on the website according to the year of its completion.

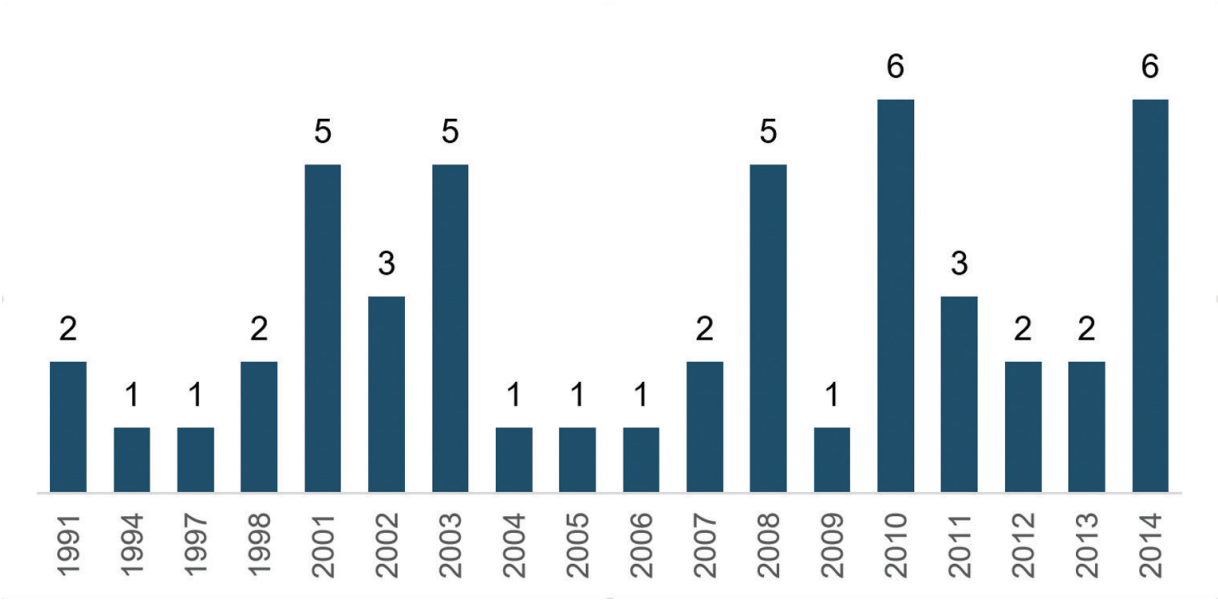

Figure 2
Number of projects x Year of completion.
Source: Authors, 2016

In the identification of uses, housing projects prevail (Figure 3). It was observed that 100% of the photographs are from private clients projects.

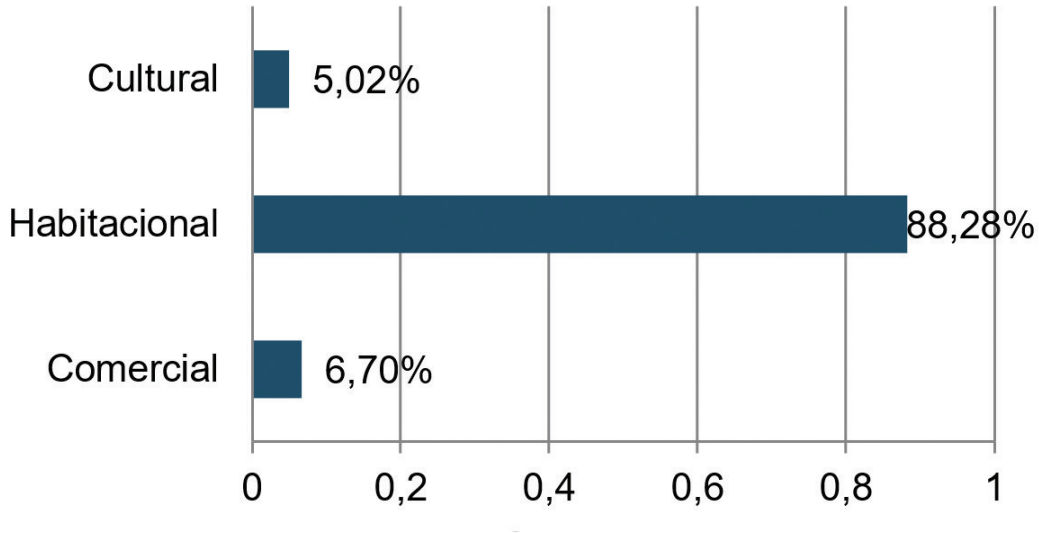

Figure 3
Distribution of photographs x use.
Source: Authors, 2016

About the graphic technique

There is a predominance of colored images. There is only one photograph in black and white and there are no photos with a sepia finish. One hundred percent of the images are conventional and none of them is interactive.

About the lighting

Regarding the incidence of light, the tabulation shows that most of the images were taken with daylight (81%) and there are almost no night images. Natural lighting is predominant (64%) and about one-third of the images have mixed lighting (Figure 4).

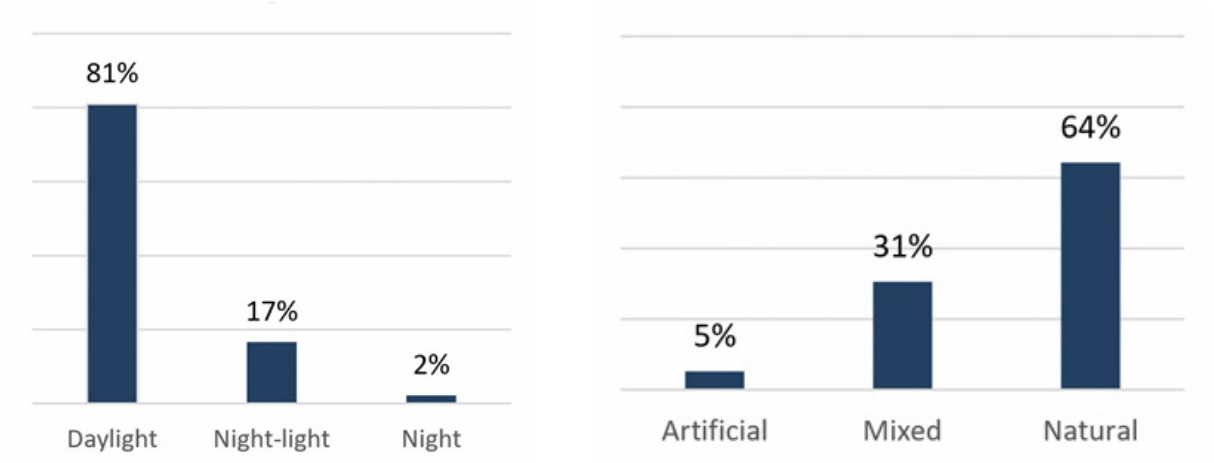

Figure 4
Graphics (a) lighting time; (b) type of lighting represented
Source: Authors, 2016

About the composition

Most of the images are in the proportion 1: 1.5 (2: 3) (78%), followed by the 4: 3 pattern, which presents the proportion 1.33 (8.1%) and 1:1.6 (6,2%) (Figure 5).

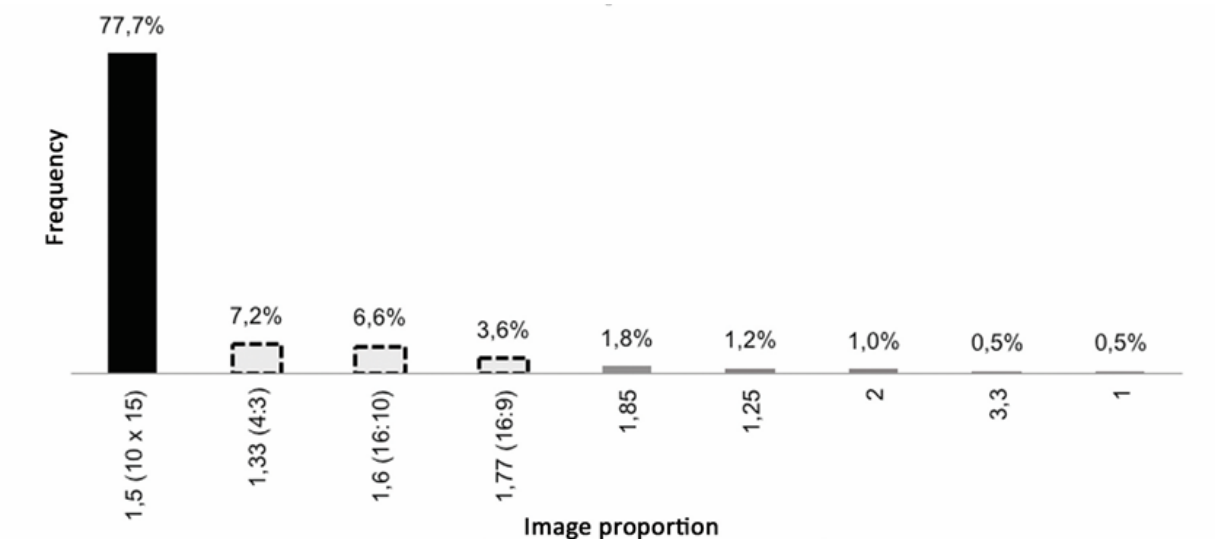

Figure 5
Image proportion: relation between major and minor dimension.
Source: Authors, 2016

There is an evident predominance of images with landscape format (87.6%) (Figure 6). The framework is centered on 72% of the photographs and decentralized on 28%.

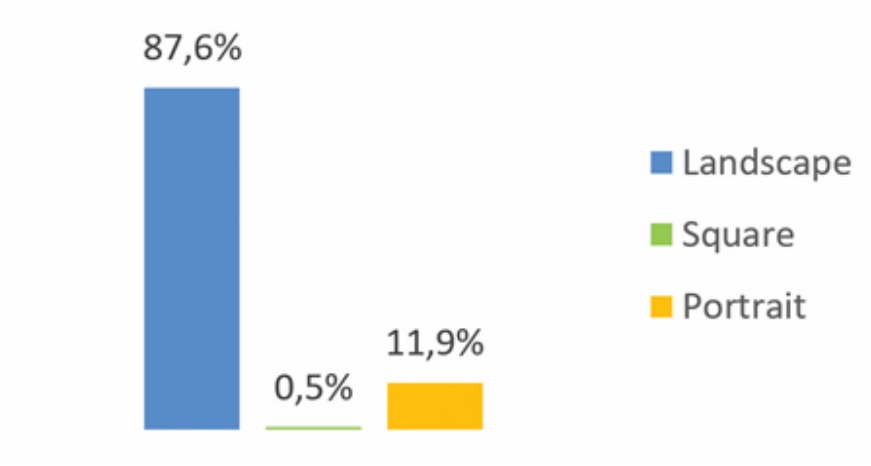

Figure 6
Images orientation.
Source: Authors, 2016

The predominant position of the observer, in relation to the lateral angulation, is the frontal position (77%), followed by that with 45 degrees (12%). The other lateral angulations are present in a reduced number of photographs, with the angulation of 60 degrees being practically nonexistent (Figure 7).

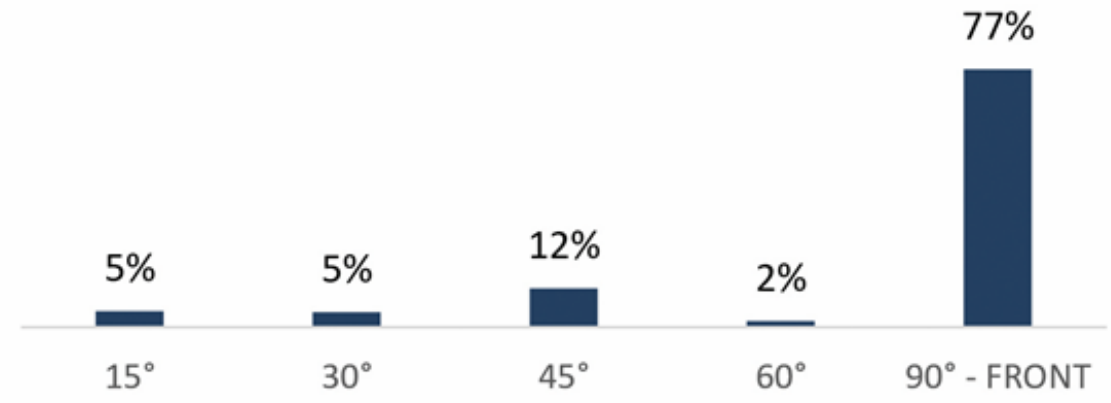

Figure 7
Lateral angulation in the images.
Source: Authors, 2016.

In the angle of elevation criteria, photographs in which the observer looks horizontally at the building predominate (90% of the images). The other positions add together 10% (Figure 8).

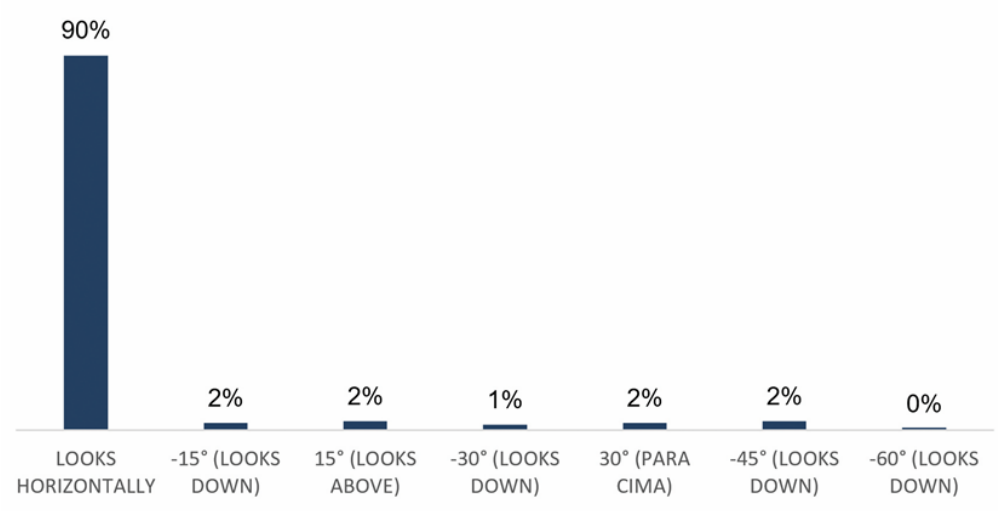

Figure 8
Angle of the elevation in the images.
Source: Authors, 2016.

Capture from the height of the observer prevails, present in more than 90% of the photographs, 3.6% also present observer height, but in another level than the ground level (Figure 9).

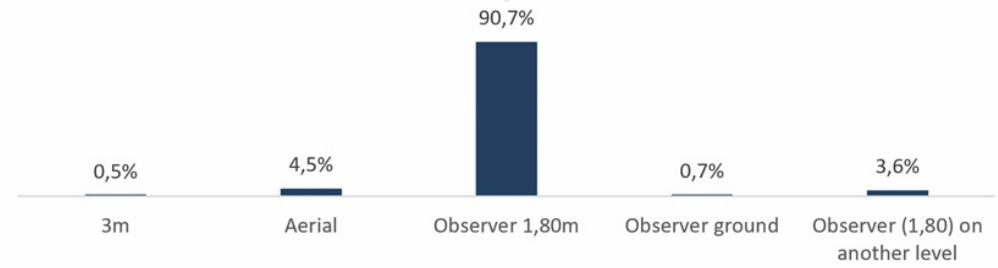

Figure 9
Visualization height.
Source: Authors, 2016.

About the content

In the item that refers to the environment, there is a smaller difference between the number of photographs showing external images (60%) and the ones revealing internal (40%) spaces. The content presented is partial in 88% of the images, with photographs that depict a certain part of the building. Twelve percent of them comprises the whole construction. Thus, 76% of the images present the surroundings and 24% do not.

About the humanization of the images

These parameters verified the presence of human figures, vegetation, vehicles, furniture or urban furniture and animals. The pattern observed is of photo-

graphs without human figures, totaling 93% of the images (Figure 10).

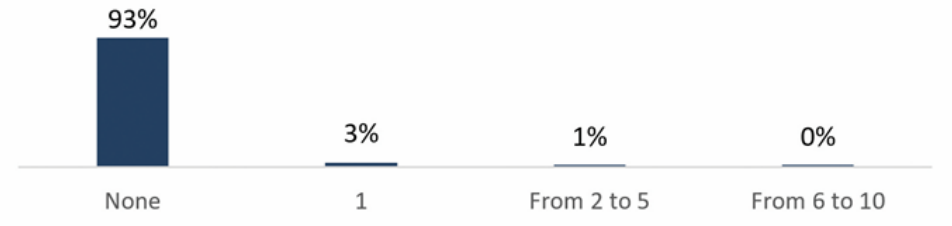

Figure 10
Counting of human figures.
Source: Authors, 2016.

Similar value is found for the item vehicles, which does not appear in 96% of the images. Predominate, however, photographs with vegetation (94%) and furniture (74%) (Figure 11).

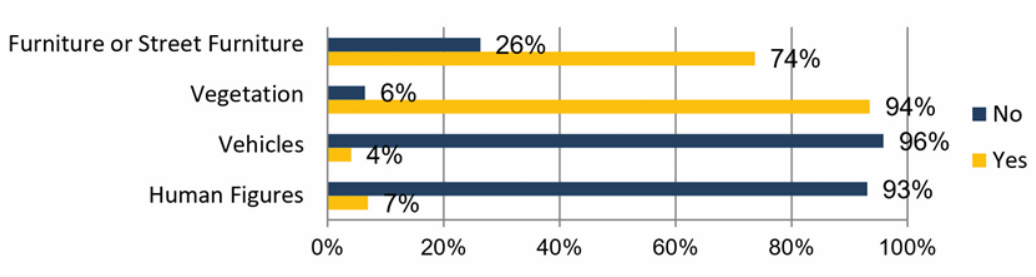

Figure 11
Summary of present items in humanization
Source: Authors, 2016.

Strategy

In this item, it was analyzed if the human figures looked at the building, a fact that occurred in 53% of the images with human figures. It was also observed if the light in the image is positioned to direct the look to the building. In this case, what prevailed was the predominance of light not positioned to look at the building, a situation present in 63% of the images.

Discussion

The overall results demonstrate a strong character of Jacobsen Architecture office`s portfolio image, as the predominant values are high. In 74% of the items, the value of the item most found in the images varies from 74% to 100%, according to the distribution indicated in Figure 12, which shows, in decreasing order, the frequency of the most present result in each of the items analyzed in the images.

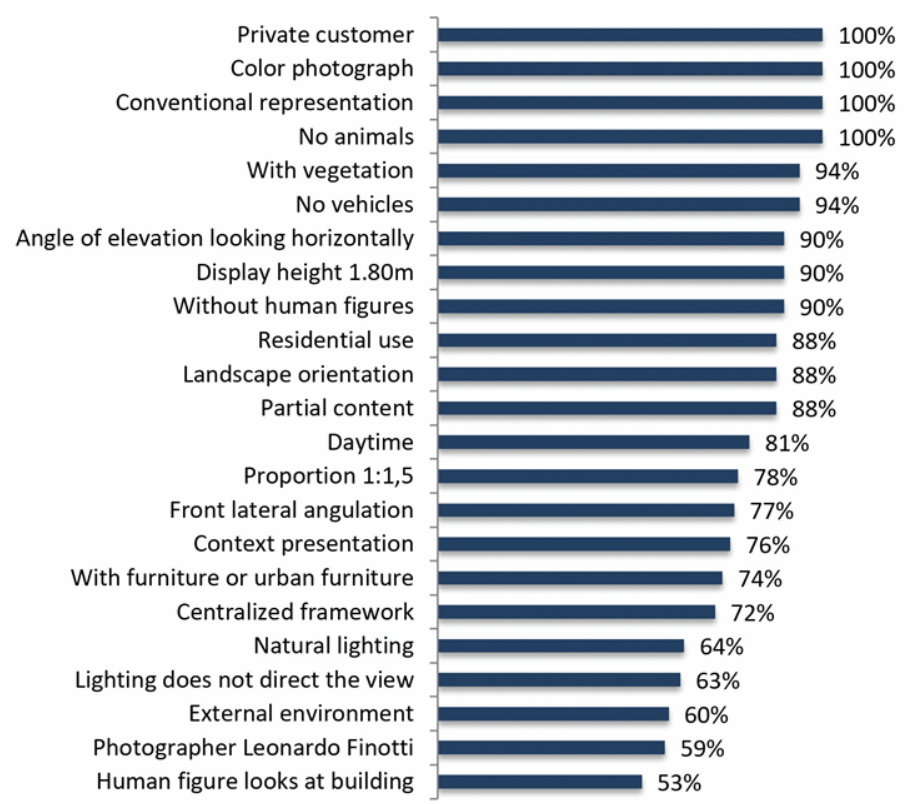

Figure 12
Prevailing items, with respective percentage.
Source: Authors, 2016.

Through these data, it is possible to consider that the most representative image of the Jacobsen Arquitetura office`s portfolio, presented in its website, corresponds to Figure 13, which shows all the most present items in the portfolio set of images.

Figura 13
The most representative image that representes JA`S portfolio presented on its wesite, photo taken by Leandro Finotti
Source: site JA, 2016. © Leonardo Finotti.

Some analysis can be made, analysing the data

Observing the indexes of lateral angulation over time, we identify a tendency of consolidation of this parameter in the image. Such evolution of the use of lateral angulation distribution, in photographs used in the website, is obseverd in Figure 14. It is necessary to consider that the dates refer to the year of the construction completion, and not necessarily to when the photo was taken.

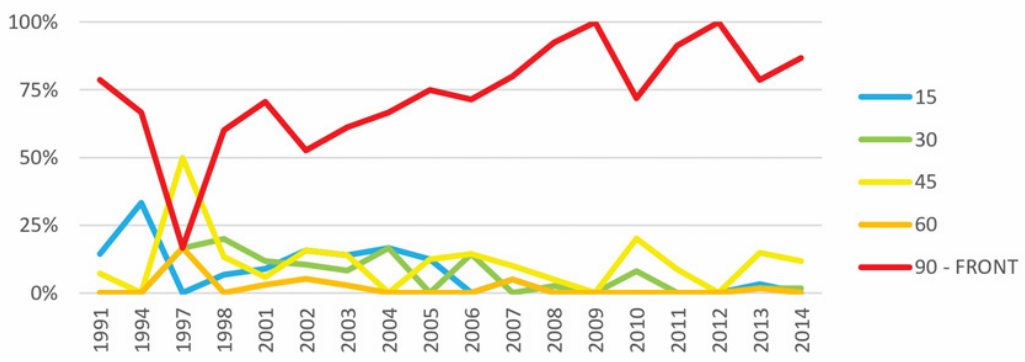

Figure 14
Lateral angulation historical evolution
Source: Authors, 2016.

Another possible relation was made with the data of framing and lateral angulation. The graphic from Figure 15, which illustrates this relationship, indicates that the closer the lateral angle approaches the frontality, the more centrally framed images appear. The proportion of images with centralized framing in the universe of images with frontal lateral angulation is considerably bigger than in the images of other angulations.

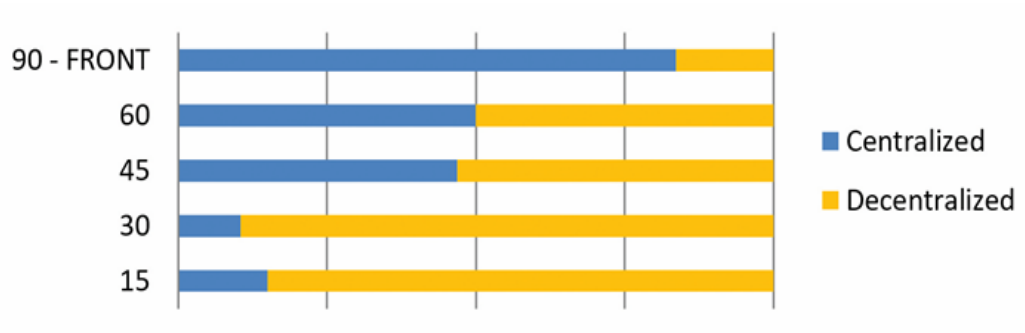

Figura 15
Porportional relationship between Framing and Lateral angulation for each item.
Source: Authors, 2016.

Furniture or street furniture

Regarding the angle of elevation, the historical evolution of the distribution of each angulation value shows the forward look tendency (Figure 16).

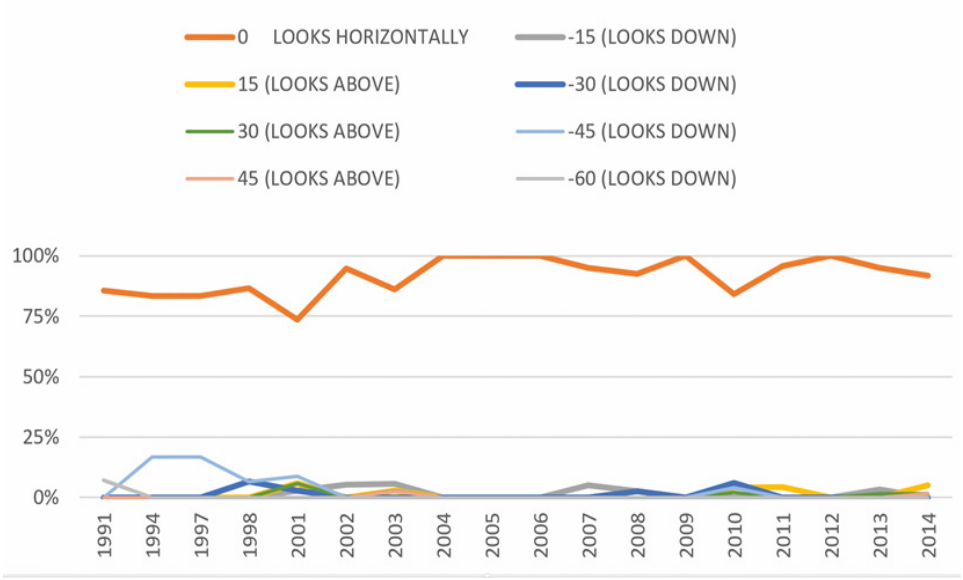

Figure 16
Historical evolution of vertical angulation frequency values.
Source: Authors, 2016.

When analyzing the relationship between framing and the angle of elevation, in the proportion of each universe, the images with zero degree (forward looking) is considerably more frequent in centralized framing than in angulated shots. The angle of 45 degrees or bigger can be disregarded, due to the small amount of images, which makes the sample unfeasible (Figure 17).

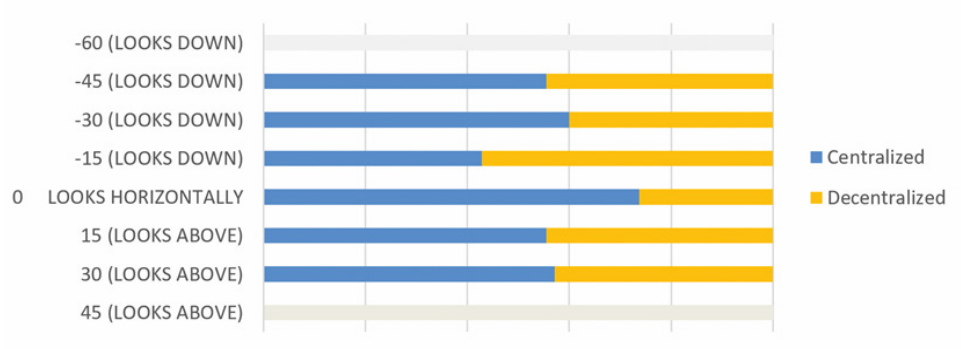

Figura 17
Relationship between Framing and Angle of Elevation.
Source: Authors, 2016.

The presented content was not a relevant variable for the type of framework variation. There is little variation in the proportion of frames in both content presentation situations (Figure 18).

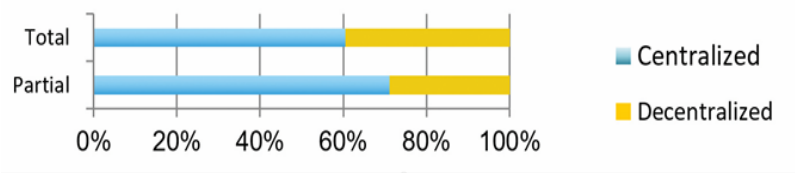

Figure 18
Relationship between Framing and Presented content.
Fonte: Authors, 2016.

To identify each photographer characteristics, Figure 19 maps the framing characteristics. It is noteworthy that André Nazareth and Andres Otero participate with very few photographs (2 and 5 photos, respectively), so their photos were not considered. A predominance of centralized framing is detected in all photographers, except in the work of Kitty Paranaguá, in which there is a balance between the two types of framing.

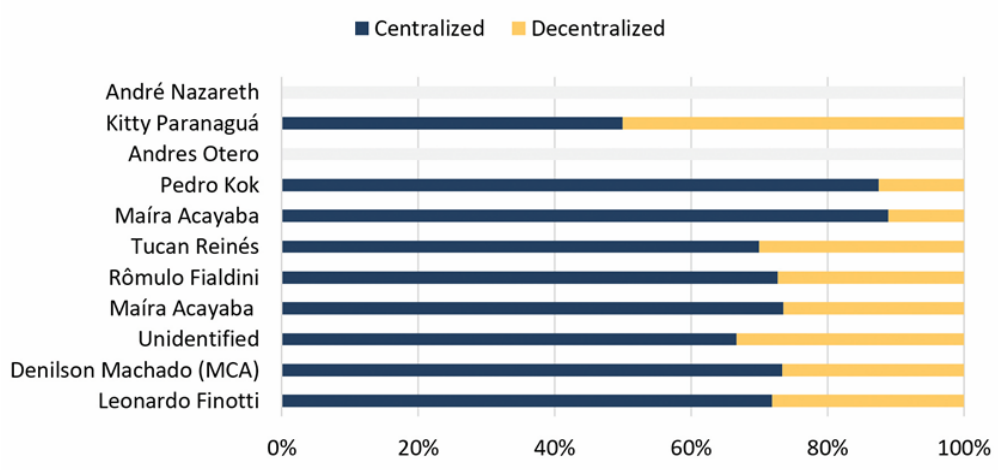

Figure 19
Each photoprapher framing characteristic.
Source: Authors, 2016.

By relating the use of lateral angulations by each photographer (Figure 20), except for the frontal angulation prevalence, a consistent variation of the other angles can be observed. Such a diagnosis makes room for later explorations.

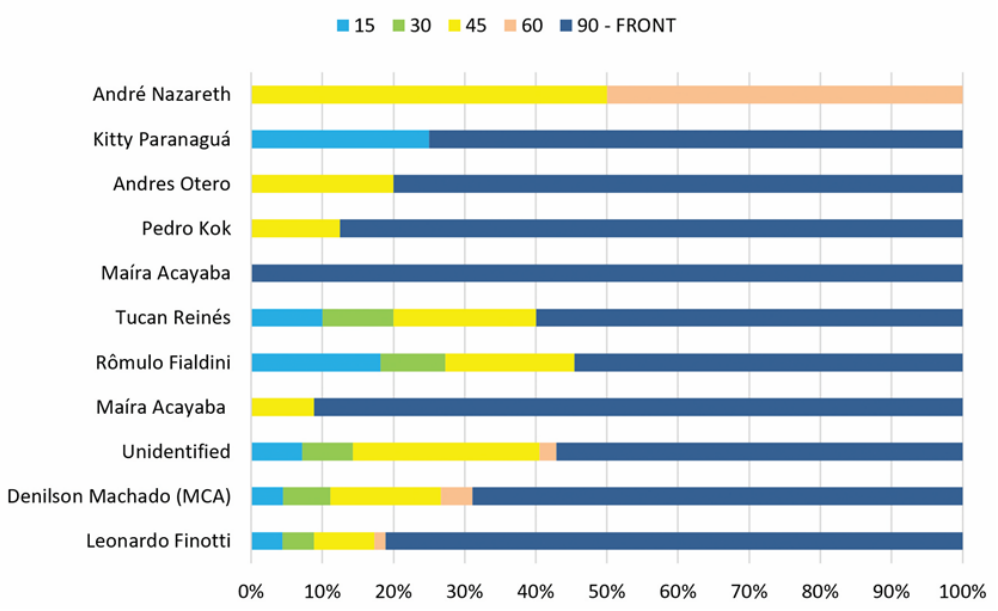

Figure 20
Proportion of each lateral angulation by photographer.
Source: Authors, 2016.

Likewise, excluding the predominant images that look ahead, it is not possible to identify a pattern for the other items of angulation by photographer (Figure 21). This also suggests further investigation.

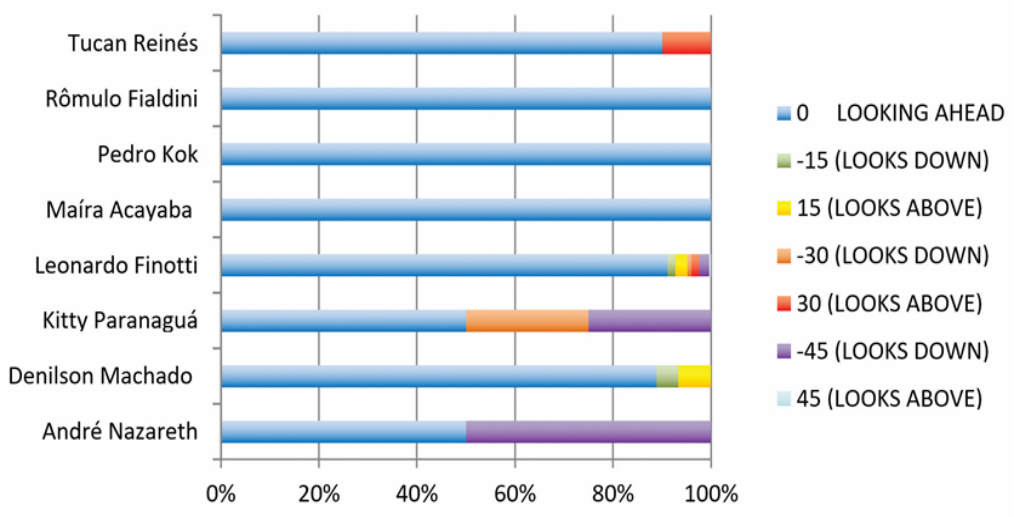

Figure 21
Angle of elevation characteristic by photographer.
Source: Authors, 2016.

Conclusion

This article presented the results of a research that analyzed 418 photographs from the Jacobsen Arquitetura office`s design portfolio. It presented the data tabulation, which analysis revealed relationships between the established parameters.

The presented results made possible to sketch that portfolio synthesis image.

It is viable to characterize a photographic image that would reflect the synthesis of the office as: private clients with residential use; with conventional, colorful, diurnal representation; with natural light, centralized framing, front view, looking forward; with the height of an observer standing up; presenting a partial view of the building in its outward vision; showing its context, with vegetation and furniture / urban furniture, but without human figures, vehicles or animals.

For future analyzes, the question remains about the character of the photographic images that are being divulged by Brazilian offices. Does the graphic representation, through photographic images, have any pattern? The character of the Jacobsen office`s

photographic images is repeated in other offices? Is this character subordinated to the identity of the photographer's work to his/her production process? What are the possible relations to be deduced, comparing the characteristics of the photographic images and the photorealistic rendering images? How do they differ or resemble each other? Do such differences or similarities depend on the particularities of each means of production?

These are some questions that came up during the analysis of the data presented in this paper. Future investigations may arise from these questions.

References

AMERICAN IINSTITUTE OF ARCHITECTS. T*he Architecture Student's Handbook of Professional Practice*. New Jersey: Wiley: 2011.

BRAGA, G. P.; STUMPP, M.M.; RIGO, V. *Imagens Digitais de Perspectiva na Apresentação de Projetos: Estudo de caso escritório MAPA*. Seminário Ibero-Americano Arquitetura e Documentação 4 (2015).

CATTANI, A. *Por uma taxonomia da representação em arquitetura*. Seminário Ibero-Americano Arquitetura e Documentação 2 (2011): 1-12

COSTA, A. E. da; PICCOLI, C.; CAON, S. *Casas lineares de Bernardes e Jacobsen Arquitetura: apontamentos sobre herança e inovação*. PROJETAR 7 (2015): 1-15.

DELAQUA, V. *Fotografia e Arquitetura: Leonardo Finotti.* http://www.archdaily.com.br/br/01-38782/fotografia-e-arquitetura-leonardo-finotti (Acesso Fevereiro 10, 2016).

ESPADA, H. *Fotografia, arquitetura, arte e propaganda: a Brasília de Marcel Gautherot em revistas, feiras e exposições*. Museu Paulista 22 (2014): 81-105.

JACOBSEN ARQUITETURA. "Estúdio-Biografia". http://www.jacobsenarquitetura.com/pagina/?CodSecao=6 (Acesso Fevereiro 10, 2016).

JACOBSEN ARQUITETURA. "Estúdio-Cronologia". http://www.jacobsenarquitetura.com/pagina/?CodSecao=7 (Acesso Fevereiro 10, 2016).

QUINTO, M. C. *Por trás das lentes, uma história: a percepção dos fotógrafos sobre a mídia impressa*. In: MONTEIRO, C. (Org.) Fotografia, história e cultura visual: pesquisas recentes. Porto Alegre: EDIPUCRS, 2012, pp. 72-88.

SHULMAN, J. *Photographing architecture and interiors*. Los Angeles: Balcony Press, 2000.

TACCA, F. de. *A morte fotográfica*. In: QUINTO, M. C. (Org.) *Por trás das lentes, uma história: a percepção dos fotógrafos sobre a mídia impressa*. Porto Alegre: EDIPUCRS, 2012, pp. 72-88.

TOLEDO FILHO, C. L.; MORAES JUNIOR, J. K. S. *Interface Gráfica do Usuário: O papel do designer digital*. In: BARBOZA, P. C. e FONSECA, R. (OrgS.). *Arte, Novas Tecnologias e Comunicação: Fenomenologia da Contemporaneidade*. São Paulo: CIANTEC 2010.

VIEIRA, C. B. de M. *A fotografia na percepção da arquitetura*. Tese (doutorado) - Universidade Federal do Rio Grande do Sul. Faculdade de Arquitetura. Programa de Pesquisa e Pós-Graduação em Arquitetura: Porto Alegre, 2012.