



H-ART. Revista de historia, teoría y crítica de arte

ISSN: 2539-2263

ISSN: 2590-9126

revistahart@uniandes.edu.co

Universidad de Los Andes

Colombia

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Geraldo de Barros: Photography as Construction

H-ART. Revista de historia, teoría y crítica de arte, núm. 2, 2018, -Junio, pp. 73-92

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DOI: <https://doi.org/10.25025/hart02.2018.04>

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# GERALDO DE BARROS: PHOTOGRAPHY AS CONSTRUCTION

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Fecha de recepción: 15 de julio de 2017 . Fecha de aceptación: 5 de octubre de 2017. Fecha de modificación: 21 de octubre de 2017  
DOI: <http://dx.doi.org/10.25025/hart02.2018.04>

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This article is an adaptation from the first chapter of the forthcoming dissertation, "Framing the City: Photography and the Construction of São Paulo, 1930-1955," written at The Graduate Center, CUNY, under the supervision of Professor Anna Indych-López. Research funding for the project has been provided by the Marian Goodman Travel Grant of The Graduate Center Art History department and The Graduate Center Provost's Office Knickerbocker Archival Research award.

## ABSTRACT

This essay analyzes the form and content of Brazilian artist Geraldo de Barros' 1951 exhibition *Fotoforma*. In the *Fotoforma* photographs, Barros employed photography as a process of construction. With photographs of construction materials as his building blocks, Barros rebuilt urban space by layering his negatives with artistic interventions, drawing attention to the tenuousness (physical and theoretical) of São Paulo's urban structure. The experimental form of Barros' oeuvre, as well as his interest in vernacular spaces, creates a place for marginalized narratives to enter the dialog of Brazilian modernization.

## KEY-WORDS

Brazilian modern art, experimental photography, São Paulo, urbanization, marginalization.

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## Como citar:

Stewart, Danielle. "Geraldo de Barros: Photography as Construction". *H-ART. Revista de historia, teoría y crítica de arte*, nº 2 (2018): 73-92, <http://dx.doi.org/10.25025/hart02.2018.04>

#### RESUMEN

Este ensayo es un análisis de la forma y el fondo de la exposición de 1951 del artista Geraldo de Barros titulada Fotoforma. En las fotografías de Fotoforma, Barros empleó la fotografía como un proceso de construcción. Con fotografías de materiales de construcción como su fundamento, Barros reconstruyó el espacio urbano mediante la combinación de sus negativos con intervenciones artísticas, llamando la atención a la falta de solidez (física y teórica) de la estructura urbana de São Paulo. La forma experimental de la obra de Barros, así como su interés en espacios vernáculos, crea un espacio para que narrativas marginalizadas entren en el diálogo de la modernización del Brasil.

#### PALABRAS CLAVE

Arte moderno de Brasil, fotografía experimental, São Paulo, urbanización, marginalización.

#### RESUMO

Este ensaio constitui uma análise da forma e do fundo da exposição de 1951 do artista Geraldo de Barros, intitulada Fotoforma. Nas fotografias de Fotoforma, Barros empregou a fotografia como um processo de construção. Com fotografias de materiais de construção como o seu fundamento, Barros reconstruiu o espaço urbano por meio da combinação dos seus negativos com intervenções artísticas, chamando, assim, a atenção para a falta de solidez (física e teórica) da estrutura urbana de São Paulo. A forma experimental da obra de Barros, bem como o seu interesse por espaços vernáculos, cria um espaço para que narrativas marginalizadas entrem no diálogo da modernização do Brasil.

#### PALAVRAS-CHAVE

Arte moderna do Brasil, fotografia experimental, São Paulo, urbanização, marginalização.

Geraldo de Barros' (1923–1998) photographic experimentation began with an act of construction. Barros pieced together a camera from scratch after his artist-friend Athaide de Barros invited him to take pictures of soccer games at the newly-built Pacaembu stadium in order to earn money to support other artistic pursuits.<sup>1</sup> Barros had no intention of becoming a photographer; his foray into the medium was a combination of expedience—he needed to make money—and flirtation—he was still new to artistic practice and insatiably curious about a variety of mediums. Nevertheless, the impetuous, constructive act of building his own camera set the tone for the body of photographic work Barros produced from circa 1946 until 1952 when he helped to organize Grupo Ruptura. Barros' most intense period of experimentation ran from 1949 through the end of 1950 as he prepared images to display in his solo exhibition *Fotoforma*,<sup>2</sup> held at the Museu de Arte de São Paulo (MASP), January 2–18, 1951.<sup>3</sup>

Barros' engagement with photography was brief, but the works he created, especially those made for *Fotoforma*, are among the most exhibited works of Brazilian photography.<sup>4</sup> A recent revival of interest in Barros' photographic production stems in part from contemporary interpretations of the fotoformas as a singular link between the aesthetic principles of two disparate Brazilian modernist groups.<sup>5</sup> On one hand, the fotoformas drew on the imagery and compositional structures Barros encountered during his membership in the Foto Cine Clube Bandeirante (FCCB), a league of São Paulo-based amateur photographers heralded by Brazilian photo historians Helouise Costa and Renato Rodrigues as the torchbearers of modernist photography in Brazil.<sup>6</sup> On the other, the fotoformas demonstrate patterns of abstraction that prefigure the advent of Brazilian concrete art, specifically the work of Grupo Ruptura.<sup>7</sup>

Beyond acting as an intermediary for these two groups, Barros was a practitioner of avant-garde photographic techniques who conceptualized the photographic process as an act of construction rather than as documentation or interpretation. "Concrete" and "constructive" were literal terms for Barros, whose fotoformas are created from photographs of concrete and other building materials. Through an experimental process that included practices of multiple exposure, scratching, drawing, cutting and montaging his negatives, Barros assumed the role of builder, constructing photographic images. Barros' bold photography constitutes a "construction of the real:"<sup>8</sup> his photographs of São Paulo were constructed images that reflected the physical fabrication of the city and complicated its "modern" reputation.<sup>9</sup>

Instead of reproducing stereotypical urban vistas, the photographs on display in *Fotoforma* replicated motion and active construction. By overlaying images—exposing a single negative multiple times, drawing on negatives, and/or cutting and collaging multiple negatives—Barros created *built* photographs.

1. Michel Favre, "Biography of the Artist," in *Geraldo de Barros: fotoformas*, ed. Reinhold Misselbeck (New York: Prestel, 1999), 127. Favre is the husband of Geraldo de Barros' daughter, Fabiana. Oddly, Fabiana offered an alternative version of her father's photographic beginnings in the exhibition and catalog she organized in 2013: Fabiana de Barros, ed., *Geraldo de Barros: Issa* (São Paulo: SESC, 2013). In this version, Geraldo de Barros began photographing in 1946 with a purchased Rolleiflex. According to the same source, the scratched negative technique he would later develop was inspired by trying to edit out soccer players' exposed genitals, visible through the openings in their baggy shorts. While it is impossible to know from second hand sources the truths of Barros' career, I have tried to be transparent in relating the sometimes conflicting narratives of his biography.

2. Because "fotoforma" is the name of Barros' exhibition as well as the general term used for his photographic works, I have been very careful with how the word is rendered. I use the italicized and capitalized singular *Fotoforma* when referring to Barros' 1951 exhibition. By contrast, I use the lower-case, unitalicized "fotoforma" and "fotoformas" when referring to the photographic works created by Barros, according to his own nomenclature. Specific fotoformas are referred to by their italicized names as printed in the most recent publication of his work: Heloisa Espada, ed., *Geraldo de Barros e a fotografia* (São Paulo: IMS/SESC, 2014). The plural, capitalized fotoformas is the name of several later exhibitions of Barros' original fotoformas, but not the name of his 1951 exhibit, which is the subject of this paper.

3. Mário Pedrosa argued that museums should be "laboratories for cultural experiments." Brazilian museums like the São Paulo Museum of Art (MASP, founded 1947) and São Paulo Museum of Modern Art (MAM-SP, founded 1948) were at the forefront of displaying contemporary art, unlike many American and European museums where until recently experimental art by living artists was passed over in favor of already-canonical works. Mario Pedrosa, "Hélio Oiticica's Projects" in *Mário Pedrosa: Primary Documents*, edited by Gloria Ferreira and Paulo Herkenhoff (Durham: Duke University Press, 2016), 308.

Even after printing, when these layers collapsed into a two-dimensional image, the interior structure of the fotoformas remains. The constructed nature of Barros' photographs was reinforced by his exhibition design, which alluded to construction through its use of common building materials and its rough-hewn affect. Thus, Barros' fotoformas repeatedly reference the constructive process linking them to their local urban environment, including marginal areas of the city routinely ignored by contemporary urban photographers.

## CONSTRUCTING THE FOTOFORMAS

Barros "constructed" the majority of the fotoformas in the lab he established at MASP.<sup>10</sup> Because no catalog of his exhibition was published—and because Barros continued to produce fotoforma-type experiments after the show was dissembled—there is no exact tally of the number of pieces in the show, but contemporary catalogs generally reproduce about fifty fotoforma photographs, including those pictured in extant documentation of the event. These photographs can be subdivided into categories based on the processes used to create them. Some, especially the earliest images, are straight photographs. Others are straight photographs with drypoint needle etching and/or India ink on top of the negative. One of the most common techniques Barros employed was multiple exposure: the overlaid images were taken with his Rolleiflex, a camera model that allowed film to be exposed several times before it was manually advanced. The fotoformas vary from total abstractions with no discernible referent, to obvious reproductions of overlaid chairs and window panes. The multiple-exposure images are all highly geometric and distinctly architectonic. Barros also layered photographs by cutting and remounting negatives on glass plates. These collaged negatives are important to the argument that Barros' methods replicated building processes, because they are the most obviously "constructed" photographs and demonstrate a distinct sense of movement. Techniques like solarisation, long exposure, and photograms—images made without the use of a camera by placing an object directly on photographic paper and exposing the composition to light—referenced the photographic experimentation of the European avant-garde in the 1920s and 30s.

However, Barros' imagery does not consistently resemble that of any one European photographer. Barros' photograms, for example, are geometric, grid-like compositions using computer cards obtained from his day job at the bank. Barros created seven fotoformas in this style, each one unique in composition but similar in method (Img. 1). The photographs were created by holding perforated cards over photographic paper and exposing them to light.<sup>11</sup> Because the cards were moved during exposure, Colombian scholar Andres Burbano refers

4. Over the course of the last twenty years the fotoformas have been re-exhibited independently multiple times as well as being included in group exhibitions of Latin American abstraction. The following is a list of Barros' solo shows featuring the fotoformas since 1990: 2015—*Geraldo de Barros e a fotografia*. SESC Belenzinho-SP; 2013—*Geraldo de Barros: What remains? The Photographer's Gallery*, London, Great Britain; 2010—*Entre tantos: Geraldo de Barros*. Caixa Cultural, São Paulo, Brazil; 2009—*Geraldo de Barros: Modulação de mundos*. SESC Pinheiros, São Paulo, Brazil; 2008—*fotoformas e suas margens*. Centro Universitário Maria Antônia, São Paulo, Brazil; 2007—*Sobras + fotoformas*. Galeria Brito Cimino, São Paulo, Brazil; 2001—*Sobras + fotoformas: Retrospective*. Ulmer Museum, Ulm, Germany; Musée de l'Élysée, Lausanne, Switzerland; Instituto Itaú Cultural, Campinas, Brazil; 1999—*fotoformas: Retrospective*. Ludwig Museum, Cologne, Germany; SESC Pompéia, Brazil; 1996—*Geraldo de Barros: fotoformas*. Fundação Cultural de Curitiba, Brazil; *Geraldo de Barros: Photographies*. Galerie Alexandre Mottier, Geneva, Switzerland; 1995—*fotoformas*. Galeria Camargo Villaça, São Paulo, Brazil; 1994—*Geraldo de Barros: Fotógrafo*. Museu da Imagem e do Som, São Paulo, Brazil.

5. For example, Renato Rodrigues da Silva, "The fotoformas of Geraldo de Barros: Photographic Experimentalism and the Abstract Art Debate in Brazil," *Leonardo* 44, n° 2 (2011), 152–160.

6. Helouise Costa and Renato Rodrigues, *A fotografia moderna no Brasil* (Rio de Janeiro: Funarte, 1995).

7. Barros protested vehemently when his mentor, Max Bill, called the fotoformas concrete artworks. Nevertheless, the visual affinities between Barros' photographs from the late 1940s and early 1950s with his paintings as a member of the Grupo Ruptura merit comparison. See Barros, ed., *Geraldo de Barros: Isso*, 12.

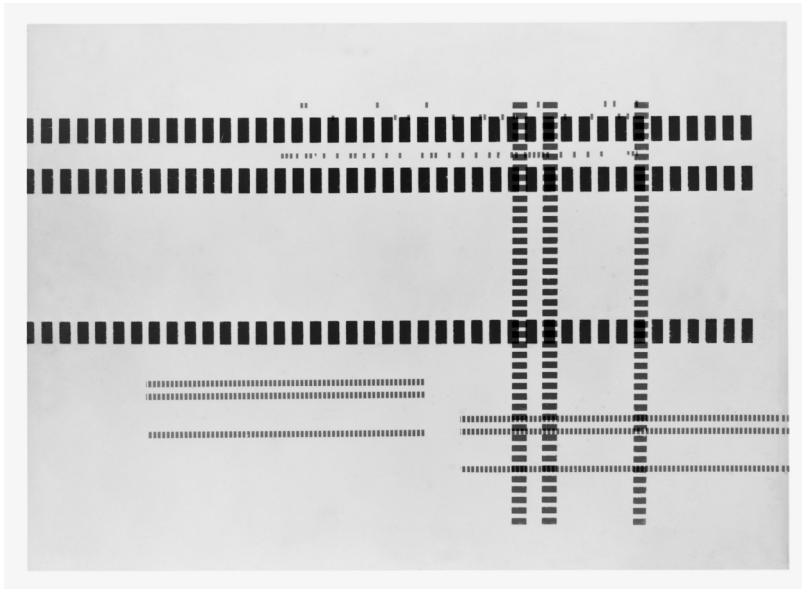


Imagem 1: Geraldo de Barros, *Fotoforma*, 1949. Gelatin silver contact print (photogram), Collection of the Museum of Modern Art, New York. Credit: Geraldo de Barros / Instituto Moreira Salles Collection.

to the resulting photographs as records of performances: inherently singular and irreproducible.<sup>12</sup> The photograms are also reminiscent of maps in the way they delineate space and bear the trace of human movement. The broken lines stretching across the photographed computer cards suggest movement across the picture plane. Barros' arrangement of the cards at approximately right angles indicates his intention of creating a gridded pattern. The photograms bear traces of then-current technologies propelling São Paulo's modernity, replicate the visual pattern of architectural grids, and mimic physical construction by stacking visual elements. They were created through a process of repetitive movement that evokes human flow through the space of the city.

Strategies like image layering, visual repetition, grid formation, and implied movement are themes Barros revisits across various photographic processes. In his scratched and India-inked *fotoformas*, layers are created through the application of ink on top of the negative, and by digging into the negative's surface with a drypoint needle. The addition and removal of material from the negative accentuates the materiality of the photograph. The natural flattening of the camera lens and the high-gloss finish of photographic prints make it easy to overlook the physicality of photographs, but Barros' artistic interventions force viewers to confront the three-dimensionality of his artworks and their referents. In *Homenagem à Stravinsky* (*Homage to Stravinsky*) (Imagem 2), for example, rips and tears from Barros' drypoint needle create a jagged trace on the negative that appear enlarged in the print. The crude line is belabored and tortuous; it

8. The original concept of the "construction of the real" comes from Peter L. Berger and Thomas Luckmann's *The Social Construction of Reality* (New York: Penguin, 1966), but it has been often adapted by Brazilian intellectuals to describe the influence of media on the creation of regional identities. Among the Brazilian iterations of this theory are: Patrícia Silveira and Lidia Marôpo, "Jornalismo e construção social da realidade: Um contributo para o teórico," *Revista Comunicando*, vol. 3, (2014): 7–19; Stone Bruno Coelho Barbosa and Suellen Level da Costa, "A influência da mídia na construção da "realidade" local," *Examãpaku* 1, vol. 2 (2009): 1–7; Maria Lourdes Motter, *Ficção e história: Imprensa e construção da realidade* (São Paulo: Arte & Ciência, 2001).

9. Geraldo de Barros, *Fotoformas* (São Paulo: Raízes, 1994), np.

10. Heloisa Espada, "Geraldo de Barros no Foto Cine Clube Bandeirante," in *Geraldo de Barros e a Fotografia*, ed. Heloisa Espada (São Paulo: IMS/SESC, 2014), 44. It is hard to get a sense of the proportion of photographs taken in São Paulo, as there is no official list of *fotoformas*. But a rough counting based on contemporary exhibitions puts the number in the range of 130 photographs, of which at least 90 percent were taken or created in the city São Paulo. Many of the remaining photographs were taken in São Paulo state, within a two hours' drive of the capital.

11. Andres Burbano, "Foto(info)grafia: Geraldo de Barros e as novas mídias," in *Geraldo de Barros: Isso*, edited by Fabiana de Barros (São Paulo: SESC, 2013): 15–22.

12. Burbano, "Foto(info)grafia: Geraldo de Barros e as novas mídias," 17. Burbano argues that Barros' process differs from Man Ray's since Barros held the computer cards over the photographic paper, rather than arranging objects directly on top of the light-sensitive paper. He coins the term "foto(info)grafia"—a portmanteau of the Portuguese words for photograph and infographic—because the product is both an aesthetic image and the visual representation of information. Although Man Ray sometimes used mechanical-looking objects in his rayograph compositions, the resulting images were both more fluid and representational than Barros'.



demonstrates the negative's resistance to the scratch and affirms the materiality of both negative and print. Barros' scratching technique adds physicality to the work and connects it visually to the larger group of *fotoformas* through the common motif of image layering.

## PHOTOGRAPHIC LAYERS, URBAN LAYERS

Layering is most apparent in two common types of *fotoformas*: multiple-exposure images and Barros' cut and collaged negatives. *Abstracto* (*Abstract*), from 1949 (Img. 3), demonstrates one way Barros used multiple exposures to create visual layers. The photograph was made when Barros repeatedly photographed a section of windows at the Estação da Luz, near the center of São Paulo. Even though the photograph is labeled an "abstraction," the characteristic peeked glass apex of the train station windows is clearly identifiable, and it is obvious that this image, too, was inspired by Barros' urban environment.

The photograph is composed of five different exposures of comparable scale (suggesting that they were all taken from approximately the same height), but at different angles (meaning that Barros either turned his own body, the camera, or both, between exposures). It would have been difficult for Barros to register the exposures, and their apparent randomness reinforces the idea of formal and experiential abstraction.<sup>13</sup> Barros' image suggests the chaotic bustle of the city's main train hub and the alienation of urban living. The exposures pivot around a central, open space creating a sensation of twisting motion, indicative of Barros' movement as he turned his own body, holding his medium-format Rolleiflex with its top-mounted viewfinder, to create his composition. Barros translated the experience of physical disorientation typical of highly-trafficked urban spaces like the train hub, into the process and product of his photograph. The layered, overlapping silhouettes in Barros' photograph heighten the disorienting effect by creating visual distortion that obscures the physicality of the space, while simultaneously drawing attention to its constructed nature. Thus, Barros shifts attention from the physical to the experiential by using images of an architectural space as the building blocks for his artistic compositions. The same steel girders and corrugated roofing that make up the material structure of the Estação da Luz provide the formal structure of his photographic image.

*Fotoforma* (Img 4), also 1949, repeats the spiraling motion of *Abstracto*. However, instead of creating *Fotoforma* from overlapping exposures with limited control over the final image, Barros composed the image in his lab from a single negative that was cut and remounted on glass. The artist mechanically incised two inscribed circles on a photographic negative depicting bricks. He turned the first circle approximately 135 degrees counter-clockwise, so that the bricks met

13. The only way to register the images would have been for Barros to use an oil pencil or similar to mark the position of each exposure on the viewfinder of his camera. That sort of planned approach seems out of sync with his more impromptu methods elsewhere in the series. It also seems to contradict his theme of depicting São Paulo's messy quotidian.

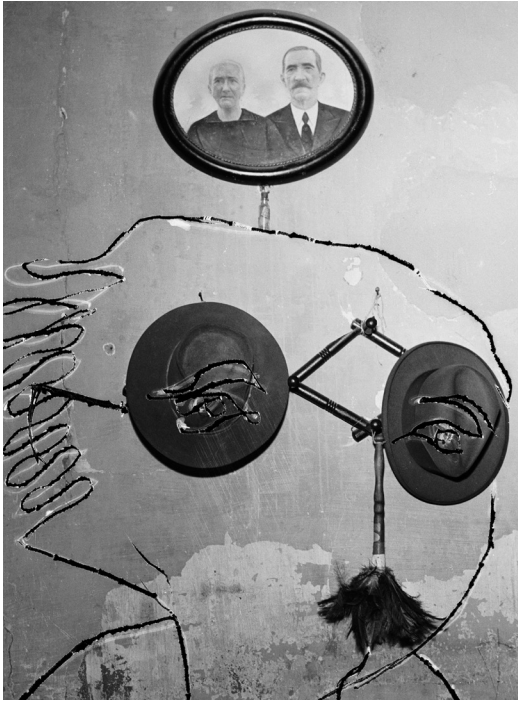


Imagen 2: Geraldo de Barros, *Homage to Stravinsky*, 1949, Itu, Brazil, Gelatin silver print with (negative drawing in drypoint needled and india ink), Collection of the Musée de l'Élysée. Credit: Geraldo de Barros / Instituto Moreira Salles Collection.

at jarring angles. By contrast, he completely discarded the second circle, leaving a gaping central void. Over the top of the cut-up negative Barros arranged five arrows made from an opaque material. After development, the arrows appear as stark white symbols superimposed on the photographic background. The precise lines of the artist-generated shapes—both the arrows and the circles—echo the geometricity of the bricks, formed with circular spaces in their cores for encasing rebar reinforcement. However, while the photographed bricks display some variation and nonuniformity, the artist-added shapes are unnaturally precise.

The superimposed arrows, most of which point to the right, and the twisting, circular cuts, repeat the sensation of motion present in other *fotoformas*. Likewise, Barros' layering of symbols and shapes creates a deceptive sensation of depth: deceptive because none of the processed photographs have any physical layers. None of Barros' artistic interventions, from the addition of India ink to the superimposition of shapes or the layering of negatives, creates any physical difference in the surface of the developed photograph: all of Barros' altered negatives are completely flattened photographs by the development process. Barros' layered compositions suggest physicality, but in reality they are no more three-dimensional





Imagem 3: Geraldo de Barros, *Abstrato*, c. 1949, Estação da Luz, São Paulo, Brazil, Gelatin silver print of multiple exposure negative, Collection of Musée de l'Elysée. Credit: Geraldo de Barros / Instituto Moreira Salles Collection.

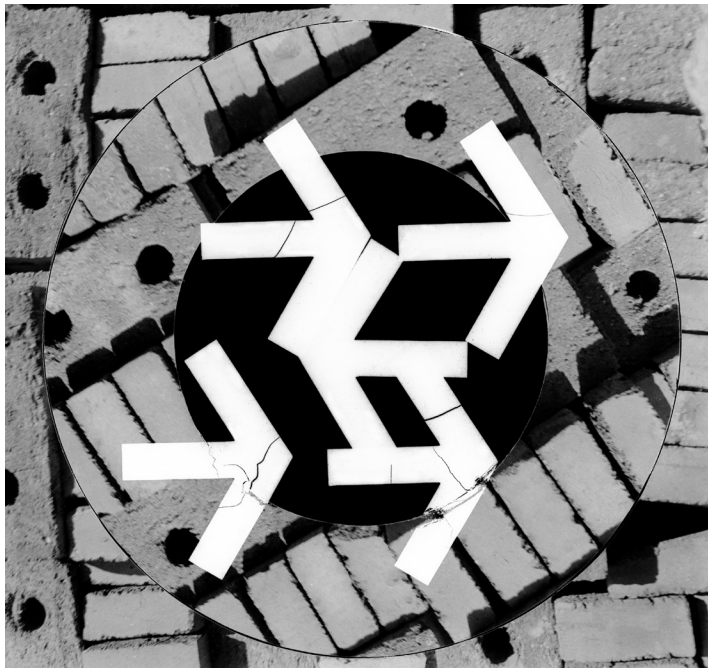


Imagem 4: Geraldo de Barros, *Fotoforma*, c. 1949, São Paulo, Brazil, Gelatin silver print made from a cut and collaged negative pressed between two panes of glass, Acervo SESC de Arte Brasileira. Credit: Geraldo de Barros / Instituto Moreira Salles Collection.

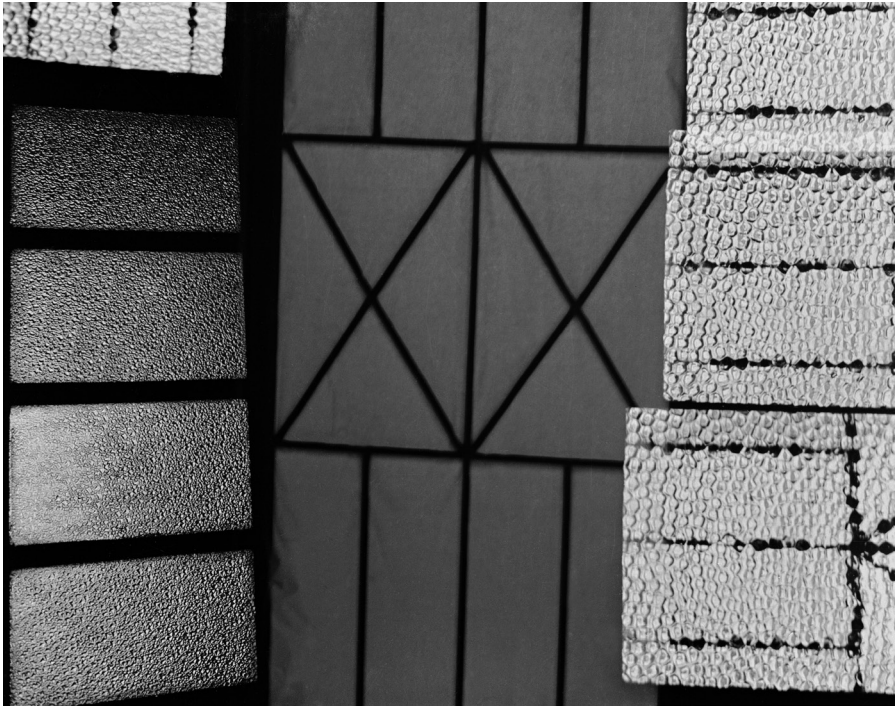


Imagen 5: Geraldo de Barros, *Sem título*, c. 1949. Gelatin silver print, Acervo SESC de Arte Brasileira. Credit: Geraldo de Barros / Instituto Moreira Salles Collection.

than any other photograph. Similarly, they depict the physical materials of urban construction, but undermine a representation of real space.

At times it is easier to identify references to construction materials in the *fotoformas* than to identify the artist's compositional methods. Such is the case with *Sem título* (*Untitled*), c. 1949 (Img. 5), a photograph that looks like a multiple-exposure photograph because there are no obvious traces of negative collaging, but contains too many independent sections to have been produced by multiple exposure. In reality, the photograph is a hybrid of two techniques—a photogram of photographic negatives: Barros superimposed negatives of several different sets of window panes in his dark room to create a collage that is both seamless and obviously composed. On the left side of the image there are four similarly-sized rectangular windowpanes stacked vertically. The panes are medium-grey, except for a bright patch on the second pane from the bottom, where light reflected off or passed through the glass. The surfaces of the windows are textured in a fine, nearly-in-discernible grain indicating that the photograph was taken at a distance. A slice of a bright white, more coarsely textured window is squeezed into the upper left corner. The disparity in color and texture between these two window treatments immediately indicates artistic manipulation. This is not a straight photograph.

The middle section of the image is covered with a geometric pattern that is evenly shaded and untextured. It seems flat and lifeless compared to the glistening panes at its left. It is not totally clear if this section of the photograph is even windowpanes; it is merely assumed to be, since it matches the formula of dark sashing and light voids that unifies the photograph's imagery. This is also the only section of the photograph to include triangles; all other sections of windowpane are rectangular. It is unclear whether the smearing and shading on some of these center panes was present on the original subject, or the result of manipulation during development.

In contrast to the hazy center section of the photograph, the right side sparkles and glistens. These bright-white windows are marked with faint black lines that look like bars barely visible through the pebble-textured glass. The black bars echo the window sashing elsewhere in the composition, while the texture of the glass on the right-hand side of the image echoes that of the glass in the upper left corner. The panes on the right seem to be closest to the viewer, not only because of greater visual clarity, but also because they overlap the flat panes of the middle-section and each other, creating an illusion of stacking. Again Barros uses physical materials to reproduce an immaterial world. His use of constructive processes to fabricate fictitious space is a metaphor for the city of São Paulo, which cultivated a modernist facade to camouflage the economic disparities and systemic inequality that limited the experience of modernism to the Paulist upper class.

Another provocative group of *fotoformas* are those that appear to have been altered, but are, in reality, straight photographs. These photographs create visual puns and reiterate the importance of construction to the larger series. *Sem título* (*Untitled*), 1949 (Img. 6) creates cognitive dissonance because it appears altered—the “PA-PA-PA” on the boxes looks applied and the cast shadows reads as the product of multiple exposures—but in reality, the image is un-manipulated. Fernando Castro suggests in *Aperture* that Barros made photographs like these in an effort to generate “layers of confusion.”<sup>14</sup> As Brazilian art critic Paulo Herkenhoff corroborates, even while parting from the real, the [*fotoformas*] operated in the camp of visual perception as abstract constructions and, on the other hand, while documents of the real, they are definitely compromised and find themselves in a state of ambivalence.<sup>15</sup>

This “state of ambivalence” is generated by the *fotoformas*’ playfulness, a product of Barros’ varied methods of intervention. The prospect of the *fotoformas*’ construction aligned them with other art-making practices like painting and engraving. But, there was always the chance that a *fotoforma* was a straight photograph. Superficially, the *fotoformas* are a tease; intrinsically, they are a photographic, phenomenological expressions of Barros’ historical moment. The constructed photographs mimicked their constructed environment operating as part of an urban fractal system. *Sem título* is not only a compelling image because

14. Fernando Castro, “Geraldo de Barros: Fotoforma,” *Aperture*, n° 202 (Spring 2011), 24.

15. “Mesmo partindo do real, as imagens operavam no campo da percepção visual como uma construção abstrata e, por outro lado, enquanto documento do real, estão definitivamente comprometidas, se encontrando num estado de ambivalência.” Paulo Herkenhoff, “A imagem do processo,” *Folha de São Paulo*, 27 Oct. 1987.

of the visual game of “is-or-isn’t-it altered?” that it generates, but also because the implied layers of Barros’ photograph mimic the layered boxes in the image, that mimic the layers of architectural construction in the urban agglomeration that generated both the boxes and their photograph. Barros point is not to “confuse,” but to replicate the city’s topographical and chronological strata. Through his representational ambivalence Barros demonstrates how urban environments can become laboratories for investigating problems of visual and ideological representation. In *Sem título* Barros experiments with metanarratives of the representation of representation and the construction of constructs—specifically the São Paulo’s constructed identity.

### SÃO PAULO AT MID-CENTURY

Mid-century São Paulo was alive with the sounds of construction. Between 1930 and 1955 the population nearly quadrupled, from about 550,000 to just over two million. City infrastructure responded proportionately with dozens of new municipal structures and many more commercial buildings erected over the same period. Paulistanos built their city’s reputation as a modern metropolis and global industrial power on this architectural/infrastructural boom. Brazilian historian Maria Arruda affirms:

The period inaugurated by the War [World War II] generated a strong sentiment of optimism, born from a mixture of material triumphs and the continuation of Brazilian singularities. As opposed to Europe, forced to retain reminders of human decimation, to keep the memory of total barbarity, to live with the uncomfortable realization of the loss of their civilizational hegemony, Brazil finally mastered the creative secrets of modernity identified with the North American way of life.<sup>16</sup>

Barros was part of this optimistic generation: he lived through the establishment of Brazilian museums, biennials, and salons, and participated in the cultural awakening of his country. Furthermore, these new institutions immediately embraced Modernism. Instead of operating outside the official art landscape, awaiting for future canonization, artists like Barros saw the immediate acceptance and propagation of their ideas.<sup>17</sup> This was the case with the *fotoformas*: Barros’ photographic experimentation was shown first in MASP, bestowing immediate legitimacy upon Barros’ unconventional techniques.

The speedy acceptance of Barros’ photographs was facilitated by close ties between art and capital in Brazil. MASP and its contemporary MAM-SP were

16. “O período inaugurado no pós-guerra suscitava forte sentimento de otimismo, nascido da mescla entre triunfos materiais de vulto e permanências das nossas singularidades. Diferentemente da Europa, forçada a reter as lembranças da dizimação humana, a guardar a memória da barbárie totalitária e a conviver com o incômodo reconhecimento de perda da sua hegemonia civilizacional, o país parecia, finalmente assenhorear-se dos segredos criadores da modernidade, que, diga-se de passagem, indenticava-se genericamente com o estilo de vida norte-americana.” Maria Arminda do Nascimento Arruda, *Metrópole e cultura: São Paulo no meio século XX* (São Paulo: EDUSP, 2000), 23.

17. Maria Arruda, “Metrópole e cultura: o novo modernismo paulista em meados do século,” *Tempo social* 9, nº 2 (Oct. 1997): 305.



bankrolled by the businessmen Assis Chateaubriand and Francisco (Ciccillo) Matarazzo Sobrinho, respectively. Artists connected with these institutions entered directly into the cultural mainstream, and often produced work that corroborated popular modernism and capital-driven culture.<sup>18</sup> So while Barros found aesthetic inspiration in photographic techniques often associated with the European avant-garde (like solarisation and creating photograms), his artistic production was not germinated by European interwar instability, but by a heightened consciousness of an American (specifically Brazilian, and even more specifically Paulistano) awakening.

In mid-century São Paulo, urban construction was both the reason for, and the end-result of, the city's explosive growth. Paulistano photographers registered newly built architecture in their photographs as evidence of the city's ascendance. Although not obviously representational, Barros' *fotoformas* are mimetic depictions of the cityscape because they reproduce fragments of city architecture while mimicking the building process. As Brazilian curator Heloisa Espada recently summarized for *Aperture*:

The photographs of Geraldo de Barros do not represent an exact mirror image of the city of São Paulo, yet they do echo, as few others have, the vertiginous growth of the metropolis after 1945. The repeated insertion of shafts of light superimposed in his *fotoformas* seems to reflect the constant movement of bodies and the accelerated pace that began to characterize the city in modern times.<sup>19</sup>

Barros' techniques go beyond representing the "accelerated pace" of the city, to replicating its constructive process.

However, Barros' photography also seems to allude to the fact that massive urbanization projects, especially those carried out under Mayor Francisco Prestes Maia's "Plano de Avenidas" (Plan for the Avenues), also had catastrophic results for many Paulistanos who were pushed out of the city center to make way for large avenues and circulation routes. Their displacement created a domino effect, dislodging residents of the suburban neighborhoods (or *bairros*) around the city center, eventually leading to the creation of new, extemporized *bairros*, many of which lacked basic services. This was the beginning of São Paulo's *favelas*, slum neighborhoods that attracted poor migrants who flocked to the city around mid-century.<sup>20</sup> The artist often incorporated rough hewn elements of the urban landscape—weathered brick, crumbling concrete, peeling paint—looking beyond the city's gleaming skyscrapers and capital-driven growth, critiquing common narratives of modernization, and referencing the city's lower-and working-class environments. Ultimately, the photographs that made up *Fotoforma*

18. This assertion is corroborated by Irene Small who writes, "the allegiance between Brazil's modern museums and the media industry was premised on a mutual interest in shaping new consumer-citizens through modern communication and design." Irene Small, *Hélio Oiticica: Folding the Frame* (Chicago: University of Chicago Press, 2016), 51.

19. Heloísa Espada, "Geraldo de Barros," *Aperture* 215 (2014, The São Paulo Issue): 67.

20. Brazilian architectural historian Nabil Bonduki attests that São Paulo did not have *any* favelas until after the implementation of Mayor Francisco Prestes Maia's "Plano de Avenidas" in 1938. Fernão Lopes Gínez de Lara, "Modernização e desenvolvimentismo: formação das primeiras favelas de São Paulo e a favela do Vergueiro" (MA thesis, Universidade de São Paulo, 2012), 15.



Imagem 6: Geraldo de Barros, *Sem Título*, Porto de Santos, Brazil, Gelatin silver print, Fabiana de Barros collection. Credit: Geraldo de Barros / Instituto Moreira Salles Collection.

showed São Paulo as a city in process and under construction, helping to make a place for the marginal within the modern.

## THE FORM OF *FOTOFORMA*

*Fotoforma*'s reorientation of São Paulo's photographic visual culture—away from the crisp, clean lines of modern photographers, toward a marginal aesthetic—is also evidenced in the exhibition design. Entering the small gallery of MASP's temporary home on the Rua 7 de Abril in the heart of downtown São Paulo, where *Fotoforma* was held, felt more like stepping under construction scaffolding than into a museum. The space was screened off by long hanging curtains. Tall aluminum pipes, running floor to ceiling, were stationed about the room, providing a support system for art works in lieu of the non-existent walls. The system was devised by the architect Lina Bo Bardi, wife to MASP's first director, Pietro Maria Bardi. In 1951 Lina was in the process of designing a permanent home for the MASP collection on the Avenida Paulista, a section of the city undergoing extensive urbanization.<sup>21</sup> Unfortunately, Lina's MASP building would not be completed until 1968. In the interim, MASP operated inside the headquarters of Diários Associados, a media conglomerate owned by the museum's founder, Assis Chateaubriand.

21. I have chosen to use Lina and Pietro Maria's first names in order to distinguish between the two Bardis.

22. In a talk given at the Graduate Center on 8 November 2016, Renato Anelli, Director of the Instituto Lina Bo e P.M. Bardi, stated that Lina's design for the temporary MASP exhibition space was inspired by fellow Italian Franco Albini. This European precedent does not negate the resonance the design had for Brazilians. Lina thought of the museum as a center for the modernization process and a didactic space. Her design was effective at creating a familiar environment with visual parallels to the cityscape undergoing the process of modernization through construction.





Imagem 7: *Fotoforma* exhibition, MASP, January 1951, Geraldo de Barros Archive, Geneva Switzerland. Credit: Geraldo de Barros / Instituto Moreira Salles Collection.

MASP's temporary galleries showcased Lina's radical concept of art display. Lina believed that art and art history should be "transparent." Instead of mounting pictures on white walls in heavy, gilded frames, Lina devised hanging solutions that suspended artworks in space.<sup>22</sup> This allowed pieces to act as both images and objects. Lina believed that hanging art on walls made it seem ornamental, betraying its true character as human work; displaying art in clamps and on easels was more true to the conditions of its creation.<sup>23</sup> Lina's methods were pedagogically progressive and representative of the zeitgeist: Lina used industrial materials like those produced in and used for the ongoing construction of São Paulo.<sup>24</sup> Lina's scaffold-mimicking display apparatus evoked modernity, because in São Paulo the act of building embodied the idea of progress, ideological and physical.

When *Fotoforma* was mounted—during the first two weeks of January 1951—about three years had passed since MASP's opening and the debut of Lina's non-traditional galleries. Barros' photographs and exhibition design complemented Lina's hanging system. The artist's portrait, an unidentified statement—probably the text from the exhibit announcement penned by Pietro Maria Bardi—and a *fotoforma* from 1950 were sandwiched between two large glass sheets in one corner of the room. The rest of the space was occupied by photographs suspended at chest-height on support poles stationed throughout the space. A few poles held larger constellations of images arranged on black and white panels organized in "Mondrian-like"

23. Zeuler R.M. de A. Lima, *Lina Bo Bardi* (Yale University Press: New Haven, 2013), 45.

24. Zeuler R.M. de A. Lima, *Lina Bo Bardi* (Yale University Press: New Haven, 2013), 45. Lina's poles were part of a prefabricated system produced in her native Italy, but they visually referenced the construction site-riddled landscape of São Paulo. Lina used native Brazilian jacaranda wood to craft the foldable chairs she designed for the galleries.

25. Heloisa Espada, "fotoformas: Luz e Artificio," in *Geraldo de Barros e a fotografia*, ed. Heloisa Espada (São Paulo: IMS/SESC, 2014), 12.

grids.<sup>25</sup> These panels mixed *fotoformas* produced using a variety of photographic techniques, from straight photography to etched and overlaid compositions, suggesting that Barros wanted his works to be read as correlated and complimentary, not privileging one photographic modality over another. Exhibition photographs document at least two pedestals, each displaying an anthropomorphic *fotoforma* enlarged to about the size of a human head, adhered to a rigid support, and then cut out for a quasisculptural effect: a flat image with a distinctive face, sitting bust-like atop a rectangular support. A minimalist bench and modernist lounge chair completed the space.

Barros' exhibition design, like the *fotoformas* themselves, evoked the urban landscape in which the pictures were created. The supports he crafted and Lina's aluminum pipe support system read as constructions within the gallery setting. They were fabricated out of materials, like raw lumber and glass, associated with construction sites. Instead of a modern "white box" or a traditional academic gallery with gilded frames and chandeliers, MASP in general, and the *Fotoforma* exhibition in particular, were designed as plebeian art spaces reflecting the vernacular built environment.

Furthermore, the content of individual *fotoformas* mimicked the materials used in the exhibition design—wood, metal, and glass. The *fotoformas*' imagery also feature numerous grids, echoing the grid formed by the poles stationed around the room, the grid of the constructed photo panels, and the grid of the parquet floor. The proliferation of grids in the exhibition space referenced the idea of an urban grid.<sup>26</sup> Additionally, many *fotoformas* contained pronounced vertical and horizontal elements: utility poles, door jambs, and other vector-like features of the urban environment.<sup>27</sup>

A straight photograph of telephone wires shot from a worm's-eye view epitomizes Barros' visual interest in grids and his proclivity for banal subject matter (img. 7). Unlike electrical and telephone poles in the United States, which are suspended high off the ground and are little-noticed by pedestrians, the telephone and electrical wires in São Paulo were—and often still are—only 10–12 feet high, making pedestrians more consciously of their presence. Marginalized Paulistanos often connect themselves to the city grid illegally by self-wiring into power poles.<sup>28</sup> This tactic became more common at mid-century when an increasing number of Paulistanos were pushed out of the city center by infrastructural reforms, and Brazilians from the countryside migrated into the greater São Paulo region. The population glut overwhelmed utility providers, who were unable to service all the new residences, many in underdeveloped areas of the city. Inhabitants of these unserved *bairros* siphoned power from the city grid, connecting their dwellings directly to utility poles with scrap wire. Barros' photograph of telephone wires engages with quotidian imagery of

26. There is no archival record of Barros' input into the exhibition design. He would have collaborated with Lina and Pietro Maria in its mounting, but his individual stake can only be hypothesized by comparing the design of his exhibition with others from the period.

27. Lúcio Kowarick and Clara Ant, "One Hundred Years of Overcrowding: Slum Tenements in the City" in *Social Struggles and the City: The Case of São Paulo* (New York: Monthly Review Press, 1994), 70.

28. The practice of self-wiring into electrical lines continues today with impunity. For Nelson Brissac Peixoto the present-day practice of illegally tapping into the city grid is an act of war in a conflict "being waged for the occupation of entire urban area, and for control over infrastructure and public spaces." Nelson Brissac Peixoto, "Latin American Megacities: The New Urban Formlessness," in *City/Art: The Urban Scene in Latin American*, ed. Rebecca Biron (Durham: Duke UP, 2009): 233 and 238.

29. The "modernist aesthetic" I am referencing here is the photographic style practiced by the FCCB, with whom Barros associated with from 1949 until around 1954, formally discontinuing his membership in 1962. The aesthetic contributions of the FCCB are documented in Helouise Costa and Renato Rodrigues, *A fotografia moderna no Brasil* (Rio de Janeiro: Funarte, 1995).

30. The telephone/electrical pole is a charged symbol of technological advancement in Latin American Art. For countries like Brazil and Mexico, where modernization was both belated and dramatically uneven, telephone and electrical poles symbolized material progress, while functioning as reminders of the vast populations whom the lines did not reach. Lynda Klich develops a similar argument to about telephone poles in the iconography of the Mexican *Estridentismo* movement in her essay "Estridentismo's Technologies: Modernity's 'Efficient Agents' in Post-Revolutionary Mexico" in *Technology and Culture in Twentieth-Century Mexico*, eds. Araceli Tinajero and J. Brian Freeman (Birmingham: University Alabama Press, 2013), 263–82. As in Brazil, technological imagery, specifically Tina Modotti's photographs of telephone poles, were not utopian or mundane, they were simply real. Klich writes that Modotti's photographs of telephone poles, "exalt the subject's symbolic value as a technological development and allude to its practical application as a method of communication." This is analogous to their function in Barros' work were they simultaneously celebrate and critique São Paulo's modernization.

infrastructural development in São Paulo. He adopts a modernist aesthetic, finding inspiration in the urban landscape, but deviates from modernist formality, purposefully engaging with less-modernized portions of the cityscape.<sup>29</sup> Instead of polished high-rise facades, Barros photographed telephone wires and bricks: objects related to construction and modernization, but unglamorous and potentially revealing of São Paulo's economic inequality.<sup>30</sup>

The telephone wire *fotoforma* has further significance as a photograph whose composition unifies the disparate visual elements in the room. Barros' worms-eye view of the wires mimics the visual rhythm of two multiple-exposure *fotoformas* made from overlaid exposures of a partially opened door, flanking his straight photograph. The utility pole's shape also resonates with a photograph across the room of a chair whose gridded seat mimics the grid of the wires. Together these geometric photographs reinforce the organizing grid-structure of the exhibition space. The solids and voids of the wires are echoed in the solids and voids of Barros' exhibition panels, as are their greyscale palette. The geometric minimalism of the images and the room communicates the artist's modernist proclivities, while alluding that, like the city itself, the *fotoformas* are a work in progress. The room buzzes and hums with synchronous, analogous patterns rooted in the urban.

## MARGINAL URBANITY AND THE FOTOFORMAS

Not all of the *fotoformas* were geometric and grid-like. A few contained more organic imagery: a potted succulent, a curvaceous tea pot, or figural graffiti.<sup>31</sup> These images still featured simplified shapes and objects were often backlit to eliminate some of their natural intricacy. The dissimilarity between the obviously constructed, structured *fotoformas* and the more curvilinear ones helps to reinforce the urbanity of the later by contrasting the natural with the man-made. Likewise, the tension between the rigidly geometric and the more organic *fotoformas* replicates the tension between the man-made and the natural, or the architectural and the biological elements of the urban fabric.<sup>32</sup>

Barros' interventions in his photographic negatives also reflect the diverse built environments that coexisted mid-century São Paulo. Downtown São Paulo was evolving into a city of modern high-rises characterized by facades of cement, glass, and steel, due to improvements set in motion by the consecutive administrations of Mayors Ademar de Barros and Francisco Prestes Maia, as well as projects funded by private interests. However, as previously mentioned, it was also the beginning of São Paulo's *favelas*, spontaneous settlements created to fill the housing demand that governmental agencies and private companies could not, or would not, provide. In addition to the burgeoning favelas, *bairros* outside of the city center were home to *cortiços*, tenement-like dwellings home to multiple

31. Two of the objects pictured in these three photographs, the tea pot and the drawing of the girl, are human creations. However, I group them under the label "organic" because they share an arabesque naturalism, compared to the linear photographs of doors, windows, chairs, etc.

32. The tension between the organic and the linear is intrinsic to each of the three *fotoformas* under discussion because each image contains some reference to the man-made: the flower's pot, the metallic gleam of the kettle, the planar finish of the chipped stucco wall.

33. Aluísio Azevedo's novel *O cortiço*, written in 1890, denounced the unhygienic conditions and commercial exploitation of the inhabitants of Rio's *cortiços* with a similar social agenda to American progressive literary works like Sinclair's *The Jungle* and Riis' *How the Other Half Lives*.

families, grouped around a common courtyard. *Cortiços* had been a part of the Brazilian urban environment for over a century, inspiring the same righteous indignation from Brazilian intellectuals as did tenements in the United States.<sup>33</sup>

Several of Barros' fotoformas contain visual references to these unmodernized, vernacular spaces.<sup>34</sup> The previously mentioned *Homenagem à Stravinsky* is a photograph of a pair of hats and a duster hanging from a rack on a wall of discolored and peeling paint (Img. 2).<sup>35</sup> Above these every-day housewares hangs a vernacular photograph of an older couple in an oval picture frame. Portraits in this style—bust-length, often hand-colored photographs featuring a straight-faced, austere-dressed, older couple standing side-by-side—were, and still are, very typical of lower-middle class Brazilian homes. Below the portraits hangs a small glass bottle. Superimposed on this banal still life, Barros etched in drypoint and traced in Indian ink the figure of an older man using the hanging hats as eyes, and the duster as nose and mustache. The combination of Barros' primitive drawing style, the lowly objects that make up the composition, and the home's apparent state of disrepair allude to a lower-class occupancy. Importantly, there is a direct correlation between the fotoformas that employ plebeian iconography, those that most bluntly display artistic intervention through Barros' application of crude caricature-like sketches, and the those with the least architectonic iconography. fotoformas in the vein of *Homenagem à Stravinsky* are constructed compositions as are other, more structured fotoformas, but with a much different aesthetic result, suggesting Barros' recognition that the São Paulo cityscape was a melange of official and precarious modes of construction.

Photographs of the exhibition do not indicate whether *Homenagem à Stravinsky* was among the works included in *Fotoforma*, but three other etched and drawn upon photographs definitely were: *Sem título (Untitled)*, c. 1948; *A menina do sapato (Shoe Girl)*, c. 1949; and *Máscara africana (African Mask)*, c. 1949, the latter being among the most often reproduced photographs from the exhibition. Barros' etched negatives recognize proletarian culture in several ways: first, the physical content of the photographic images—a discarded shoe or a crumbling wall, for example—are objects that reference the material culture of proletarian São Paulo; second, references to graffiti, violent visual incursions on constructed surfaces, highlight the tension between the cleanliness of official architectural modernism and the reality of marginalized communities; third, Barros' rough treatment of line and shape references the artist's budding interest in Brazilian art critic Mário Pedrosa's theories of *arte virgem* (virgin art), a universal aesthetic privileging the production of "primitive peoples," children, and psychiatric patients.<sup>36</sup>

Barros' embrace of Pedrosa's universalist primitive aesthetics complicates the narrative of Brazilian abstraction, as pointed out by Kaira Cabañas who asks: "What does looking to the art produced by psychiatric patients," or in this case the faux-primitivism of Geraldo de Barros, "bring to our understanding of

34. Barros' interest in affordable design and socially progressive art later in his career, suggest that the artist was aware of the general conditions of São Paulo's less-fortunate. Barros' own family was from the small town of Chavantes in the São Paulo state countryside. They came to the state capital in 1930 in the wake of plummeting coffee prices; Geraldo was only seven years old at the time. His family's economic difficulties during his childhood may have precipitated Barros' social awareness.

35. Barros did not explain his dedication of the work to the composer, but the face etched on the negative resembles the bespectacled, mustachioed Stravinsky. This photograph was actually taken in Itu, a small town in the countryside between São Paulo and Campinas, but the scene it depicts is typical of poorer housing within the city as well.

36. *Arte virgem* is related to Jean Dubuffet's theory of "Art Brut." After having spent several years abroad in Europe and the United States, Pedrosa must have been aware of the development of Art Brut, which Dubuffet theorized in 1948. More about the relationship between *arte virgem* and Art Brut can be found in Gustavo Henrique Dionísio, "O Antídoto do Mal: sobre arte e loucura, Mário Pedrosa e Nise da Silveira" (Master's Thesis, Universidade de São Paulo, São Paulo, 2004).

37. Kaira Cabañas, "Learning from Madness: Mário Pedrosa and the Physiognomic Gestalt," *October* 153 (2015): 44.



mid-century modernism [. . .] a time generally aligned with a highly rational cultural outlook and accelerated modernization, both of which are associated with the development of a geometric or concrete aesthetic in art?”<sup>37</sup> Barros’ *fotoformas* offer one response to Cabañas’ question, extending the modernist discourse to include the forgotten spaces of urbanization alongside its iconic industrial imagery. Barros juxtaposes the geometric formality of the city center with the organicism of the periphery, complicating the dialogue surrounding São Paulo’s modernization.

## CONCLUSION

The photographs that made up *Fotoforma* included images that plainly depicted the urban landscape and its component parts, abstractions that approximated the geometry of urban architecture and replicated the construction process, and artist-manipulated images that synthesized the experience of marginalization met by members of the lower-classes for whom modernization was anything but the promised utopia. Waldemar Cordeiro (1925–1973), Barros’ future collaborator in Grupo Ruptura, commented on *Fotoforma* in his role as art critic for the Paulistano newspaper *Folha da Manhã*. Cordeiro’s review, although somewhat dramatic (“The beauty of picturesque angles, beloved by Salon photographers, have met in Geraldo de Barros their crisis and death”), affirmed the importance of Barros’ photographs as a record of São Paulo’s physical change: The origin and significance of these works transcends purely technical experimentation to be of particular historical importance. Through the medium of photography, Geraldo lives in the actual moment of renovation.<sup>38</sup> In *Fotoforma* Barros employed avant-garde techniques to register the physical renovation of the city. The content and construction of *Fotoforma* and the *fotoformas* align, replicating the processes of São Paulo’s modernization photographically. Furthermore, Barros’ varied technical approaches broaden the scope of Brazilian modern photography, incorporating visual and theoretical references to São Paulo’s marginalized communities.



38. “A origem e o significado destas obras transcende a pesquisa puramente técnicas para revestir-se de uma importância histórica toda particular. Através do gênero da fotografia Geraldo vive o atual momento de renovação.” Waldemar Cordeiro, “Ponto Parágrafo na Pintura Brasileira,” *Folha da Manhã*, 7 Jan. 1951.

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