## Landscapes of Care: Photography, Film, Modern Architecture and Landscape Heritage



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## White buildings, Red Dust: Brasilia in Ektachrome Colour

Ciro Miguel

#### **Abstract:**

Brasília's red dust is everywhere. Regularly tinting the white surfaces of Brasília's modernist buildings red, a great effort of human labor is required every day to maintain their intended autonomy. Dust clouds first appeared in February 1957 due to massive earthworks and the clearing of the original landscape. While large tractors and caterpillars aggressively manipulated the ground following the forms of Lucio Costa's Pilot Plan, a formless entropic dispersal of red soil microparticles filled the air. As the floating dust spread over Brasília's construction site, it also filled the printed pages of newspapers and magazines

This article intends to discuss how dust tainted the representation of Brasília. As modernist architecture confronted the landscape, dust introduced a distortion in the pure image of Brasília, threatening not only the whiteness of the upcoming architectures but also contaminating drawings, cameras, lenses, printed photographs, clothes and lungs. While most of the architectural black and white photos of Brasília tended to produce clean images, the introduction of the newest color film Ektachrome by photojournalists made earthworks and dust visible. Associated with grainy reproduction in illustrated magazines and speckles of dust in the negatives themselves, the images enhanced the perception of Brasília's total environmental design.

If dust is, according to Richard Meyer, "an environment in miniature, a physical archive of our material surroundings," this article analyzes how these fine particles of solid matter and their accidental reproduction, operated as visual dissonances that confuse the modern distinction between nature and culture.

Keywords: Landscape, Dust, Modern Architecture, Brasília, Photography

**Ciro Miguel** is a Brazilian architect, photographer, and doctoral fellow of the Institute for History and Theory of Architecture at ETH Zurich. He holds a professional diploma from the Universidade de São Paulo FAU USP and a master's degree from Columbia University GSAPP. He was co–curator of "Todo dia/Everyday," the 12th International Architecture Biennale of São Paulo (2019). In 2022, he co–edited the book *Everyday Matters: Contemporary Approaches to Architecture* (Ruby Press).

#### Introduction

As part of the government's propaganda to promote Brasília, the Brazilian Ministry of Foreign Affairs invited English writer Aldous Huxley to visit Brasília's construction site in 1958, hoping to inspire the science–fiction author to write about the city. While Huxley only left a brief note, the most significant account came from North American poet Elisabeth Bishop who accompanied him on the trip. Even though some of the completed buildings fascinated Bishop, her overall description of the "city of hope" was grim: "The place had been described to me, but I was not prepared for quite such dreariness and desolation [...] one's first and last impression of Brasília was of miles and miles and miles of blowing red dust [...]."

As the floating dust spread over Brasília's construction site, it also filled the printed pages of newspapers and magazines. For critics of the new capital, the dust was a vessel of their anxieties, described as a threat to health and maintenance. For supporters, the dust was "fundamental," and its dirtiness represented the efforts of a new country under construction. For President Juscelino Kubitschek, the dust was a metaphor for a more democratic future, hovering above all and leveling social extremes.<sup>3</sup> For builders covered in dust, it was a daily concern that worsened the working conditions. For opportunistic salesmen, it was merchandise sold in bottles to tourists at Cidade Livre.<sup>4</sup>

This article discusses how dust tainted the representation of Brasília. As modernist architecture confronted the landscape, dust introduced distortion in its pure image, threatening not only the whiteness of the architecture but also contaminating the surfaces of drawings, cameras, lenses, printed photographs, clothes and lungs on the construction site. While most of the architectural black—and—white photos of Brasília produced clean images, the introduction of the newest color film Ektachrome by photojournalists made earthworks and dust visible. With their exaggerated color reproduction in illustrated magazines, these images enhanced the perception of Brasília's impact on the environment.

If dust is, according to Richard Meyer, "an environment in miniature, a physical archive of our material surroundings," this chapter analyzes how these fine particles of solid matter and their accidental reproduction in illustrated magazines, operated as visual dissonances that confuse the modern distinction between nature and culture.

<sup>1</sup> José Osvaldo de Meira Penna, Depoimento - Programa de História Oral, 1990, 7, Arquivo Público do Distrito Federal.

<sup>2</sup> Elizabeth Bishop, "A New Capital, Aldous Huxley, And Some Indians," *The Yale Review* 94, no. 3 (July 1, 2006): 82, https://doi.org/10.1111/j.1467-9736.2006.00213.x.

<sup>3</sup> Juscelino Kubitschek, Por Que Construí Brasília (Rio de Janeiro: Bloch Editores, 1975), 89–90.

<sup>4</sup> Wolf Jesco Von Puttkammer, Depoimento - Programa de História Oral, 1990, 8, Arquivo Público do Distrito Federal.

<sup>5</sup> Quoted in Anselm Wagner, "The Bauhaus and the Vacuum Cleaner," in *Dust & Data: Traces of the Bauhaus across* 100 Years (Leipzig: Spector Books, 2019), 42.

## The Land Before Brasília and the Cerrado as Background

The vibrant green of a few photographs found in the Public Archive of Brasília (Fig.1), captured by Novacap's<sup>6</sup> photojournalist Mário Fontenelle circa 1956, showcase this savannah-like landscape prior to Brasília's construction. Far from pristine nature, these images evoked how the region had been used in an incipient way at the time, with wood extraction, animal grazing, and lowtech agricultural practices.<sup>7</sup>[Fig.1]

Although some of these photographs were published in the state–sponsored magazine *Brasilia* —mostly used as official propaganda for the region's natural resources —the original colorful photos found in the archive provide a vivid depiction of the so–called Cerrado, a rich biome that occupies a vast area of Brazil's central plateau, encompassing diverse fauna and flora, indigenous populations, and quilombos (settlements of Afro–Brazilian slave descendants).8

If, as Susan Sontag put it, "to photograph is to appropriate the thing photographed," it can be said that Fontenelle's photographs were part of a larger historical context of occupation attempts in that environment that had started in the 16<sup>th</sup> century, with Portuguese explorers seeking gold and indigenous peoples to enslave. <sup>10</sup>

## **Mapping the Ground**

Lucio Costa's winning proposal for Brasília's Pilot Plan does not mention the biome Cerrado, but references the landscape early in the text. The architect, attentive to the topographical lines, described how the ground suggested his initial conceptual drawing of a cross to subtly bend its horizontal line: "It was then sought to adapt [the plan] to the local topography, the natural flow of water, the best orientation, arching one of the axes in order to contain it in the equilateral triangle that defines the urbanized area."

Despite all sorts of mapping materials available, when construction started, the very first drawings by Lucio Costa and Oscar Niemeyer were still considered inaccurate compared to the actual landscape. Urban planner Jayme Zettel, who was part of Costa's team explained the issue:

<sup>6</sup> Companhia Urbanizadora da Nova Capital [Novacap] was founded in 1956 as a federal 'super-agency,' responsible for the planning, administration, police force, real estate, construction and also propaganda of the new capital.

<sup>7</sup> Interview with researcher from Embrapa Cerrados, Fábio Gelape Faleiro, April 20, 2023.

 $<sup>8 \</sup> Quilombo \ Mesquita, https://www.metropoles.com/distrito-federal/brasilia-a-capital-que-ha-63-anos-afastou-um-quilombo-para-existir$ 

<sup>9</sup> Susan Sontag, On Photography, 3rd printing (New York: Farrar, Straus and Giroux, 1978), 5.

<sup>10</sup> Bertran, História Da Terra e Do Homem No Planalto Central: Eco-História Do Distrito Federal, 67.

<sup>11</sup> Original quote: "Procurou-se depois a adaptação à topografia local, ao escoamento natural das águas, à melhor orientação, arqueando-se um dos eixos a fim de contê-lo no triângulo equilátero que define a área urbanizada." In Lúcio Costa, "Memória Descritiva do Plano Piloto, 1957," in *Registro de uma vivência* (São Paulo: Empresa das Artes, 1997), 284.



"These first drawings had nothing to do with reality. [Brasília] was still a drawing that did not say how to materialize the city, to put it on the ground, as we called it." This transfer from drawing to the ground was indeed more challenging than expected, as the site was not as flat as the urban plan initially suggested: "We were making cuts in the terrain, trying to put in that axis' arc [from Lucio Costa's plan] ... [It was] said that [the ground] was a billiard table, but the billiard table had a 3% drop, it was a complicated billiard table. But we had to, in fact, manipulate the terrain a lot until you put the position of Lucio Costa's plan in the best position, for cutting and landfill purposes." 13

12 Original quote: "Então os primeiros desenhos desses colegas meus mais velhos, era sempre um desenho que não tinha nada a ver com a realidade. Era um desenho ainda de projeto, era um desenho que não dizia ainda o que a gente tinha que fazer na verdade como urbanista, que era pegar a cidade, materializar, botar ela no chão, como nós chamávamos." In Jayme Zettel, Depoimento – Programa de História oral, 1989, 5, Brasília, Arquivo Público do Distrito Federal.

13 Original quote: "Fazendo cortes no terreno, tentando botar aquele arco do, vamos dizer, dos eixos. Colocar aqueles eixos, no terreno, que o que tinha... o Israel Pinheiro dizia que aquela era uma mesa de bilhar, mas a mesa de bilhar tinha 3% de caimento, era uma mesa de bilhar meio complicada. Mas a gente teve que, na verdade, mexer muito no terreno até você colocar na melhor posição, para efeito de cortes, de aterros, a posição do plano, do risco do Lucio Costa." In Zettel, 3.

[Fig. 1]
Mário Fontenelle, Cerrado, c.a. 1957, Arquivo Público do Distrito Federal

#### **Deserts and Dust**

In contrast to the available aerial photographs, and the photographs of Cerrado's lush vegetation by previous photographers, Brasília's protagonists, such as Kubitschek, Niemeyer, and Costa insistently described the existing landscape, or the ground, as a "desert," a forgotten land devoid of humans, animals, vegetation, and culture. Similar descriptions of emptiness emerge from reading the memoirs of Costa, Niemeyer, and Kubitschek. "The truth is that Brasília exists where there was only desert and loneliness a few years ago," Costa wrote. "It was a huge desert, lost on the central plateau," Niemeyer emphasized, and Kubitschek persisted, "Only the desert flatness existed in that region."

Referring to the landscape around Brasília as "desert" was a strategy to construct a narrative of a blank space, unproductive, available for occupation and exploitation. As Historian Paul Carter writes, "(...) the question of the language you use and the space it conjures up are interrelated. It's not that one describes another; they constantly reflect on each other." To assume that space as empty, the Brasília operation intentionally erased previous cultures, fauna and flora, repeating the abstraction of previous colonial projects, such as Tordesilhas and the Hereditary Captaincies, of the 15th and 16th centuries.

The concept of a deserted territory was reinforced by the influential art critic Mário Pedrosa, who interpreted Brasília as an "oasis-civilization." In Pedrosa's view, colonial practices of land appropriation were inevitably reproduced in Brasília. Using the striking metaphor of Brasília being a "planted oasis in a desert," illustrated how the city would allow "the massive settlement of civilization and the mechanical dominance of an empty land, solitary, using imported techniques." 19

#### **Bulldozers and Earthworks**

The cultural and environmental erasure was not only symbolic, but also physical. As modernity reached the frontier with its planning schemes, designs, resources, cameras, and heavy machinery, dust became the first and foremost side effect of progress' destructive force.

<sup>14</sup> Lúcio Costa, "O Urbanista defende sua cidade, 1967," in *Registro de uma vivência*, (São Paulo: Empresa das Artes, 1997), 301.

<sup>15</sup> Oscar Niemeyer, As curvas do tempo: memórias (Rio de Janeiro: Revan, 1998), 192.

<sup>16</sup> Juscelino Kubitschek, Por Que Construí Brasília (Rio de Janeiro: Bloch Editores, 1975), 45.

<sup>17 &</sup>quot;Space, Writing and Historical Identity: David Malouf Talks to Paul Carter about The Road to Botany Bay," *Thesis Eleven* 22, no. 1 (1989): 92–105, https://doi.org/10.1177/072551368902200107.

<sup>18</sup> Mário Pedrosa, "Reflexões Em Torno Da Nova Capital," in *Acadêmicos e Modernos*, ed. Otília Arantes (EDUSP, 2004), 391. 19 Pedrosa. 391.

According to Juscelino Kubitschek, the dust clouds first appeared in 1957, triggered by massive earthworks and clearing of the original landscape. In just a few hours, hundreds of bulldozers, were assigned to carve the delicate lines of Lucio Costa's urban plan in the ground. Heavy machinery, with an unfair advantage over trees and grasslands, performed colossal earthworks and massive clearings to shape the Cerrado according to the imagined project. Suddenly, the original vegetation was removed, bringing to the surface layers of red soil and dust. These were samples of the red-yellow latosol, a soil rich in iron oxide characteristic of Brazil's central plateau. Kubitschek was quite dramatic about the red dust dispersal: "[...] in July, the first of the big tractors arrived, and soon there would be hundreds of them. A real battle had begun in the Cerrado, which, shredded by the construction equipment, was being pushed to the edges of the Plano–Piloto area. In its place came dust – the famous Brasilia dust – red, oily, that infiltrated everything and there was no washing system capable of eliminating it. The workers, the engineers, the technicians were no longer the same. They became reddish in color, with their clothes and hair of the same hue." (Fig.2)

This violent episode of environmental destruction constituted the first of many photographic events that were choreographed to be captured in a split second by photojournalists. The state–sponsored magazine *brasilia* published many photographs of Brasilia's earthworks and bulldozers taken by Mário Fontanelle. Accompanied by texts such as "Men, machines, enthusiasm, action," the images, seen a posteriori, were an incredible testimony of the anthropic gesture of transforming the natural land into an entirely artificial man–made construct.

Altogether, the number of photographs documenting the Brazilian nation state's ambitious plans provided a unique visual representation of modernity-in-the-making to the world public. They echoed the praise of bulldozers, tractors, airplanes and other machinery as symbols

20 Original quote: "Em fevereiro de 1957, cerca de duzentas máquinas estavam em atividade na região, trabalhando dia e noite, sem qualquer interrupção. Eram ainda máquinas pequenas, dada a falta de estradas, mas, em julho, ali chegou o primeiro dos grandes tratores, que logo seriam centenas. Uma verdadeira batalha tivera início no cerrado, o qual, retalhado pelos equipamentos de construção, foi sendo empurrado para as extremidades da área do Plano-Piloto. Em seu lugar surgiu a poeira – a famosa poeira de Brasília – vermelha, oleosa, que se infiltrava em tudo e não havia sistema de lavagem capaz de eliminá-la. Os operários, os engenheiros, os técnicos já não eram os mesmos. Tornaram-se de uma cor avermelhada, com as roupas e os cabelos apresentando a mesma tonalidade." In Kubitschek, *Por Que Construí Brasília*, 74. 21 Original quote: "Homens, máquinas, entusiasmo, ação" in *brasília* n.1, February 1957, 5

## A marcha





 Tratores e caminhões em plena atividade.



S. Exa. o Sr. Presidente da República e o Dr. Israel Pinheiro, Presidente da Cia. Urbanizadora da Nova Capital, em palestra cordial com engenheiros e operários.



 Prosseguem os serviços de terraplenagem e nivelação de áreas.



• Uma estrada vai sendo rasgada ...



 Uma ponte de emergência, sôbre um riach no seio verde da brenha.

# da construção de Brasília



 A primeira descarga de cimento em Brasilia.



 Materiais que em breve se transformarão em edificações e benfeitorias.



 Um palácio provisório de madeira edificado, por iniciativa de amigos do Sr. Presidente da República, em pouco mais de dez dias.

Homens, máquinas, entusiasmo, ação. E Brasília é uma idéia que se concretiza, um empreendimento que avanca em ritmo acelerado.

Govêrno e Nação anseiam por que se transformem em realidade os planos da nova urbs cuja edificação, no centro do território nacional, modificará profundamente o panorama econômico, social, político e administrativo do país. Aquêle põe todo seu esfôrço, dinâmico e patriótico, na abreviação da obra; a Nação acompanha com vivo interêsse e confiança a execução do trabalho, ciente de que Brasília constitui a iniciativa mais acertada e mais oportuna para que o Brasil possa, de fato, progredir.

Nestas palavras do Senhor Presidente da República encontramos a síntese, o sentido integral da magnifica realização que ora tem lugar em pleno sertão brasileiro:

"A fundação de Brasília é um ato político cujo alcance não pode ser ignorado por ninguém. É a marcha para o interior em sua plenitude. É a completa consumação da posse da terra. Vamos erguer no coração do nosso país um poderoso centro de irradiação de vida e progresso." of progress, which was aligned to the discourse on modernization in the late 1950s in Brazil. President Kubitschek, as an enthusiast of air travel, and attentive to the media coverage, always made sure to have photographs of himself boarding planes or spectacularly flying around Brasília's different construction sites in his personal helicopter. While efforts to build a new road between Belém and Brasília through the Amazon Forest were under way, President Kubitschek made sure to have photographs of himself deforesting, crafting an image of a "Don Quijote on a tractor." <sup>22</sup> (Fig. 3)

#### **Red Soil and Dust in Ektachrome**

Italian journalist and writer Alberto Moravia offered a dramatic impression of Brasília's construction. In a text entitled "Brasília Barroca," published at *Corriere de la Sera* in 1960, he wrote: "From the airplane, Brasília, located fortuitously among the infinite horizontal undulations of the plateau (apparently, the place was chosen after exact calculations as the most central in Brazil), makes one think about the display on a butcher's counter of several bloody steaks. Depending on the time of earthworks, more or less bloody red parcels reveal the buildable areas that have been wrested from the tropical bush."<sup>23</sup> Moravia's analogy of "bloody steaks" on the green landscape, alluded to the red earth as forensic evidence of the ecological disruption in Brazil's central plateau.

While written accounts, newspaper articles and oral histories constantly referred to the impacts of the red dust, landscape and dust were hardly documented in architectural photographs of Brasília. This iconic representation focused on buildings which led historians Anne Troutman and Linda Hart to notice this "suppression of reality:" The pristine images of the capital, its monuments and axes, superblocks and plazas are carefully constructed compositions, dramatic and impersonal. Most of the views are framed and cropped to eliminate or change context, authorship, habitation, human scale or interaction. The buildings, not man or landscape, are the subject, the literal and symbolic heart of this universe... Several articles written on Brasília describe the magnificent landscape, the red earth and vast blue skies of a trackless prairie, but few images show this landscape... Where are these photographs?"<sup>24</sup>

<sup>22 &</sup>quot;Dom Quixote montado em um trator." *Anos JK: Uma Trajetória Política*, directed by Silvio Tendler, (Calaban Produções, 1980), 00:53:05, https://youtu.be/Qe6RGrCE2fc.

<sup>23</sup> Original quote: "Dall'aeroplano il luogo di Brasilia, situato come a caso tra le infinite ondulazioni orizzontali dell'altipiano (ma a quanto pare questo luogo è stato scelto dopo calcoli molto precisi come il più centrale del Brasile) fa pensare all'esposizione, sul banco di un macellaio, di una quantità di bistecche sanguinolente. Riquadri più o meno rossi secondo l'epoca più o meno recente degli sterramenti, rivelano le aree fabbricabili che sono state strappate alla macchia tropicale." In Corriere della Sera, August 28, 1960.

 $<sup>24 \,</sup> Anne \, Troutman \, and \, Linda \, Hart, \, ``The \, Photographic \, Suppression \, of \, Reality: \, Re-Presenting \, Brasilia, \, '' \, 1998, \, 321, \, https://www.acsa-arch.org/chapter/the-photographic-suppression-of-reality-re-presenting-Brasilia/.$ 



These photographs exist and were shot by photojournalists carrying at least two cameras, one of them loaded with color film, 35mm Kodak Ektachrome. Depending on the future distribution of these images to different audiences and journals, Brasília images were constructed to validate a discourse of progress. With photography being an ambiguous representation that can both conceal and reveal, it seems that these color photographs appear to communicate something more than black and white.

Besides the availability of color film stock in the 50s, the aesthetics of photojournalism and architecture's photography was predominantly black and white. Color was mostly associated with mass consumerism, and being a medium still in development, posed several technical limitations related to speed, and color reproduction.

In the discourse of architectural photography, black and white film persisted for a long time as the main medium. Even in the 1970s, important figures such as British architectural photographer Eric de Maré contributed to color's bad reputation: "I believe that in creative photography black and white wins aesthetic laurels in competition with colour, particularly in architectural work. For one thing, color photography tends to be too naturalistic, often to a garish degree. Is anything more repellent, for example, than the combination of postcard-blue sky with vivid green grass

[Fig. 3]

Anonymous, Juscelino Kubitschek on a buldozer, 1959, Arquivo Nacional

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below it? Nature is by no means an artist. Black and white stresses forms, tones and textures, whereas colour can distract the eye from these and weaken the structural entity. $^{125}$ 

During Brasília's construction, color was exclusive to a few illustrated magazines, since architectural publications, newsreels, and television continued to transmit images mostly in black and white. With the introduction of Ektachrome in the mid–40s, color films did not require to be sent to Kodak Laboratories in Rochester, as was the case of Kodachrome, and could be developed by the photographer on–site. In addition to Ektachrome's faster workflow, vibrant colors, and crisp resolution even after enlargements soon made it the preferred film for illustrated magazines, photo agencies and photojournalists working in far–off places around the world.

Following Ariella Azoulay's assumption that the camera makes destruction acceptable, <sup>26</sup> in the case of Brasília, Ektachrome magnified the dusty side of modernity by rendering it visible. Black and white images converted the reds and greens of the transformed landscape into gray tones, <sup>27</sup> effectively concealing the impact of the earthworks. Ektachrome exaggerated the soil's red hues. A Kodak manual from 1955 stated, "No film can provide a perfect color match, and a perfect match isn't necessary for good pictures... Even the best films tend to render some colors more brilliantly than others. Ektachrome film provides excellent, really high color fidelity. Its greatest brilliance is in the yellow and the red end of the color scale, thus giving Ektachrome pictures a warmer appearance..." Historically, red and green, were considered a problem in color photography. As colors of the same value, they seemed to "pulsate violenty when represented adjacently."

The red–green contrast was exploited by René Burri, in a series of Ektachromes that ended up illustrating a 10–page visually rich photo–essay for the French illustrated magazine *Paris Match*. Among the color photos, a full–page image showed an aerial view of a road cutting through a large green surface with amorphous red stains of exposed soil on both sides. The accompanying text described how bulldozers carved vast patches in the 'jungle,' and that "10 million trees had to be cut down" <sup>30</sup> to build Brasília.

<sup>25</sup> Eric Samuel De Maré, Architectural Photography (London: Batsford, 1975), 10, http://archive.org/details/architecturalpho0000dema.

<sup>26</sup> Ariella Azoulay, Potential History: Unlearning Imperialism (London: Verso, 2019), 6.

<sup>27</sup> Sally Eauclaire, The New Color Photography (New York: Abbeville Press, Publ., 1981), 9.

 $<sup>28\,</sup>Eastman\,Kodak\,Company\,of\,New\,York,\,Kodak\,Ektachrome\,Film\,\big([Rochester,\,N.Y.,\,Eastman\,kodak\,co.],\,1955),\,3,\,http://archive.org/details/kodakektachromef00east.$ 

<sup>29</sup> Eauclaire, The New Color Photography, 9.

<sup>30</sup> Original quote: "Il a fallu abattre 10 million d'arbres pour qu'enfin la capitale vive," in Paris Match, n. 581, May 28, 1960.



It is interesting to note that, as found in Mário Fontenelle's archive, there are duplicated photographs that were shot both in color and in black and white. While the magazine *brasilia* always printed his photos in black and white for economic reasons, many of the originals were indeed in color. Because Ektachrome's high color saturation, Fontenelle used the film's vivid palette to photograph the first clearings to locate the Pilot Plan on the ground. Fontenelle's images from the airplane of a massive red stain in the green landscape seemed to make a visual translation of Moravia's description of the earthworks as "bloody steaks." (Fig.4)

[Fig. 4] Mário Fontenelle, Clearing, c.a. 1958, Arquivo Público do Distrito Federal

## Red Dust in Manchete Magazine

If Brasília tended to be seen as a fantasy in a faraway land, the first Ektachrome photos documenting the red soil made it even more unreal. Its representation in illustrated magazines introduced visual distortions that were fundamental to corroborate the narrative construct of Brasília as a modernist city in the "desert."

In 1951, color reproduction was a major investment for the newly established illustrated magazine *Manchete* to outperform the local competition. At the company headquarters in Rio de Janeiro, a photographic department and a cutting–edge laboratory with imported equipment and chemicals was set up to specifically develop Ektachrome positive films. Under the direction of Hungarian–Brazilian photographer Nicolau Drei, who had prior experience in color development and close connections with the Kodak Research Labs, *Manchete* conducted many tests with Ektachrome, helping to update the film's development process.<sup>31</sup>

With this technology available, Brasília's red soil was first made available to the wider public in *Manchete* in 1958.<sup>32</sup> These first ever color reproductions of Brasília's architecture were an important milestone for the government's promotional plan of the capital's transfer from Rio de Janeiro, and for the magazine, the sumptuous images were intended to capture the imagination of the readers and sell magazines. Two color photographs of the upcoming architecture were printed: the recently built Brasília Palace Hotel with workers in the foreground, and the Alvorada Palace, still with some scaffolding. Zooming into the image, it's noticeable that the color reproduction was achieved through color masking, a technique that manually translated the original positive film to print. <sup>33</sup> The reproduction of the Alvorada Palace appeared as a fantastic montage, giving both the building and the soil a quite astonishing otherworldly presence. (Fig.5)

The artificial appearance of the red color emphasized the perception of a lifeless environment. When combined with the buildings' unprecedent shapes, this visually fueled the readers' imagination of a futuristic city being built atop an existing "desert" by a "Pharaoh"-like president.

### **Dustiness vs Whiteness**

As the construction works advanced, red dust introduced a material distortion into the pure image of Brasília. It threatened not only the whiteness of the architecture but also contaminated drawings, cameras, photographs, and lungs.

<sup>31</sup> Drei Nicolau, Depoimento - Programa de História Oral, 1990, 2, Arquivo Público do Distrito Federal.

<sup>32</sup> Manchete, n. 325, July 12, 1960.

<sup>33</sup> Brian Gamm, "A Color Correction Maskerade," CMYK History (blog), November 28, 2020, https://cmykhistory.com/a-color-correction-maskerade/.



When the first buildings were completed in 1958 the ever–present red dust became a threat to the architecture itself, dirtying the buildings' whiteness and proper appearance. If the white wall was associated with modern architecture, and order and hygiene, red dust was anti–modern, chaotic and dirty. With red dust covering its surfaces, Brasília failed to live up to its ambitions of being a symbol of modernity, taming Brazil's central plateau. The dust complicated the clear distinction that Brasília aimed to achieve between architecture and nature, between civilization and wilderness, order and disorder.

Many architectural features in Brasília were designed to protect the buildings from dust, following the architect's exaggerated vision of white modernity. The smooth surfaces of white marble cladding didn't let the dust settle and could be easily washed. The same for the glazing.

[Fig. S]
Orlando Alli, Manchete, n.325, July 12, 1958, BN Digital

However, dust stubbornly kept staining everything red. In 1958, the writer Elizabeth Bishop had the opportunity to directly witness the human labor required to maintain the buildings' intended purity: "Dust seeped into the [Brasília Palace] hotel, tingeing the carpets and one's clothing and the gray marble floor of the lounge was powdered with it. I watched a workman trying to clean this floor with an electric polishing machine. After producing a few big spirals edged with banks of red dust, he gave up the attempt." Besides this technological failure described by Bishop, cleaning workers proved to be fundamental to maintaining architecture's whiteness and transparency, thus validating the idea of the buildings' apparent timelessness.

## **Clean vs Dirty Images**

While buildings had to be cleaned from dust, so were their photographic representations. Although newspapers and illustrated magazines frequently denounced the city's dusty air, Marcel Gautherot, commissioned by architect Oscar Niemeyer to document Brasília's construction, produced impressively clear black and white photographs. If dust clouds occasionally appeared in his photographs, they were always depicted, as critic Lorenzo Mammi writes, as a "luminous dust that made the buildings appear to float." <sup>35</sup>

Gautherot's photos were never grainy and did not show any specks of dust on their surfaces. Combining the fine–grain resolution of medium format black and white film and pictures with no visible dust on its surface created the timeless modernist image of Brasília, which emphasized the "building's temporal otherness, suggesting it belongs to another time and place." <sup>36</sup>Against the physical reality of the landscape, Gautherot reinforced modernism's "environmental purity," and most of his Brasília photographs became the preferred choice for architectural magazines, exhibitions and books. To this day, they continue to illustrate most publications about Brasília.

Gautherot's portrayal of Brasília was similar to the images of German photographer Albert Renger-Patzsch, who photographed heavy industry in the Ruhr Valley in 1936. Art historian Korola explains that Renger-Patzsch worked in a highly polluted environment and took great pains to edit and avoid dust imperfections in his photos, adhering to the pictorial and

<sup>34</sup> Bishop, "A New Capital, Aldous Huxley, And Some Indians," 87.

<sup>35</sup> Mammi Lorenzo Mammi, "A Construção Da Sombra," in *As Construções de Brasilia*, ed. Heloisa Espada (São Paulo: Instituto Moreira Salles, 2010).

<sup>36</sup> Iain Borden, "Imaging Architecture: The Uses of Photography in the Practice of Architectural History," *The Journal of Architecture* 12, no. 1 (February 1, 2007): 57–77, https://doi.org/10.1080/13602360701217989.

environmental clarity of New Objectivity.<sup>37</sup> According to Renger-Patzsch, the dust was an unacceptable distortion, "every grain of dust and the smallest damage on the verso becomes a disagreeably noticeable fleck or stroke after enlargement."<sup>38</sup>

Contrary to Gautherot's work, the photographs of Brasília's construction published in mass-circulation magazines were often dirty and grainy. Their grittiness in both black and white and color images resulted from the enlargement of 35 mm films, the cheap paper, and occasional specks of dust in the negatives that would appear on the printed surface. As historians who look for manuscript errors, and side notes, to go through the distortions of Brasília's grainy photographs in illustrated magazines, provides insights on social and environmental issues taking place in Brasília's construction site. Instead of the artificially purified architectural images, these "dirty pictures" taken through the dusty lens of photojournalism, work as a litmus test of larger contingencies of modernity in Brazil.

### Brasília is Only Dust

One day before the inauguration of Brasília, the newspaper *Tribuna da Imprensa* published an article with the headline: "Hours before the transfer, Brasília is still dust." Owned by Carlos Lacerda, who was one of the most vocal opponents of the capital transfer, the newspaper continuously bashed the city. The article criticized the unfinished works, the high prices, the lack of electricity and, of course, the dust. According to the newspaper, "Brasília was taken over by violent clouds of dust that caused coughing and didn't allow anything to stay clean for more than a minute. Even the inverted bowl of the Congress building, originally white in design, was now red with so much dust." The text also reported that masks were being distributed and that the city officials suggested not to wear clean clothes during the opening. Despite the sensationalist tone, the dust had indeed been a significant challenge during the whole construction. Because of its pervasiveness and disturbances, construction workers nicknamed the dust swirls as "Lacerdinhas," a reference to *Tribuna da Imprensa*'s owner and Brasília's main enemy, Carlos Lacerda.

 $<sup>37\,</sup>Katerina\,Korola, "The\,Air\,of\,Objectivity:\,Albert\,Renger-Patzsch\,and\,the\,Photography\,of\,Industry," \textit{Representations}\,157, \\ no.\,1\,(February\,1,2022):\,90-114, \\ https://doi.org/10.1525/rep.2022.157.5.90.$ 

<sup>38</sup> Korola, 102.

<sup>39</sup> Original quote: "Horas antes da mudança, Brasília é ainda poeira," Tribuna da Imprensa, April 20, 1960.

<sup>40</sup> Original quote: "Brasília está tomada por violentas nuvens de poeira que provocam tosse e não permitem que nada fique limpo por mais de um minuto. A tigela invertida do prédio da câmara, branca em projeto, acabou ficando vermelha de tanta poeira." *Tribuna da Imprensa*. April 20. 1960.

In the days leading up to the inaugural ceremonies, an intense "cleaning ballet" was launched to get rid of the enduring presence of the red dust (Fig.6). Because the city and its buildings needed to be as white as possible for its major photographic event, an army of workers washed and swept the floors, ensuring that the appearance of cleanliness was maintained. The illustrated magazine *Manchete* reported on the last–minute frenzy cleaning, captured by the French photojournalist Yves Mancier. The impressive photograph depicted five unidentified workers cleaning the Congress slab, with the Senate dome in the background. This image can be considered as a major critical shift in how modern architecture tended to be represented at the time. Instead of sterile photographs with buildings portrayed in a continual state of newness, it uncovered the maintenance as a continuous ritual necessary to cherish the building's monumentality.

This was not only important to relieve the concerns of those opposed to the project, as the dust became the *leitmotif* of their campaign against the capital transfer,<sup>42</sup> but also to produce timeless images of the architecture at its best. The effort to erase, at least temporarily, the material distortion of the dust ensured the city's whiteness as a symbol of modernity and progress. As Niemeyer wrote: "Brasilia emerged white and civilized."<sup>43</sup>

#### **Modernization and Dust**

During the postwar period, there was a general demand for modernization, consumption, and purity. In the European context, for example, as author Kristin Ross explains, a war-torn and deprived France, was gripped by a national desire for cleanliness.<sup>44</sup> Hygiene became a redemptive effort, and to be clean meant to be a modern and remodeled nation. French minister of cultural affairs André Malraux, who praised Brasília as the *capitale d'espoir* during his visit in 1959, even led a campaign in the same year to whiten the French monuments in Paris by scrubbing away the accumulated dust.<sup>45</sup>

In Brazil, the main symbols of a new, developed nation were the white monuments of the post-war "capital of hope." Promoted by the state, illustrated magazines, and advertisements, Brasília's photogenic architecture intertwined modernization, modernism and cleanliness. To convey the message of progress, the buildings and their representations were supposed to appear dust-free, shiny, and clean. Mud, red dust, and dirt were associated with the backwardness of a rural country and an untamed disturbed environment.

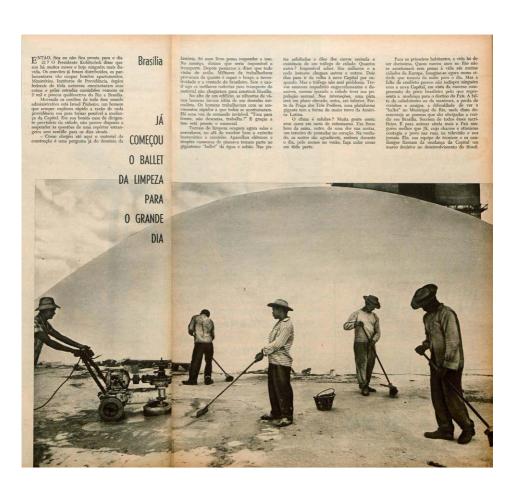
<sup>41</sup> Original quote: "Já começou o ballet da limpeza para o grande dia," Manchete, n.418, April 23, 1960.

<sup>42</sup> Original quote: "A poeira, por exemplo, tornara-se o *leit-motiv* das suas reclamações. Já que seus integrantes não podiam mais dizer que a transferência não se faria, agarraram-se ao pó vermelho do Planalto e o transformaram numa das bases para a sua campanha contra a cidade." Kubitschek. *Por Oue Construí Brasilia*. 422.

<sup>43</sup> Oscar Niemeyer, "Brasília 70," Acrópole, n.375-376, July-August, 1970.

<sup>44</sup> Kristin Ross, Fast Cars, Clean Bodies: Decolonization and the Reordering of French Culture, (Cambridge, Mass: The MIT Press. 1996), 74.

<sup>45</sup> Herman Lebovics, "Malraux's Mission," The Wilson Quarterly (1976-) 21, no. 1 (1997): 85.



[Fig. 6]
Yves Mancier, Manchete, n.418, April 23, 1960, BN Digital

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As a result, both the architecture and the urban plan were designed apart from tropical nature. The buildings were elevated to minimize contact with the ground, and the Pilot Plan, affiliated with the "Modern Constitution," <sup>46</sup> assumed a total separation between nature and culture. As the author Lucio Costa commented in 1974: "When I had the idea of positioning the [Three Powers] Square, it was, among other things, with the aim of highlighting the contrast between the civilized part, under the control of Brazil, and the wild nature of the Cerrado." <sup>47</sup>

Against all odds, the pernicious presence of the red dust, in buildings and photojournalistic photographs, failed to recognize this distinction, producing a hybrid condition that reinforced Bruno Latour's statement that "We Have Never Been Modern." If postwar modernization promised development, cleanliness, and Brazil's convergence on the world stage, the dust seemed to taint the desired purification, serving as a constant reminder of modernity's unintended side effects.

#### **Red Dust Matters**

In the 1960s, Brasília was still part fantasy, and part reality. <sup>49</sup> The stubborn dust on its buildings discernible in some photojournalistic photographs, was material evidence of the construction, for better or worse. As Teresa Stoppani writes: "Dust occupies and measures the distance between architecture's image and its physical realization, the non–coincidence of its idea and representation, and construction and inhabitation. Dust brings to architecture that which is difficult to measure, control and represent: its constant change, decay and corruption, or, in other words, time – what conventional architectural representations do not see." <sup>50</sup>

After attending the capital's inauguration, Brazilian writer Nelson Rodrigues praised the dust as a subversive element. In his newspaper article "The Defeat of the Fools" (1960) he wrote that the dust was not an element that undermined the city's image, but rather its main symbol. For him, dirt represented change and a better future, while cleanliness was elitist and reactionary. Rodrigues wrote that "This great horror of dust is obviously very symbolic. What is hidden, or rather, what is not hidden behind this allergy is the dream of a very comfortable honesty

<sup>46</sup> Bruno Latour and Catherine Porter, We Have Never Been Modern (Cambridge, Mass: Harvard University Press, 1993), loc. 312.

<sup>47</sup> Original quote: "no meu espírito, quando tive essa intenção de marcar a posição da Praça era, em parte, com o objetivo de acentuar o contraste da parte civilizada, de comando do país, com a natureza agreste do cerrado." Brasília uma questão de escala, p.39

<sup>48</sup> Bruno Latour and Catherine Porter, We Have Never Been Modern (Cambridge, Mass: Harvard University Press, 1993).

<sup>49</sup> Sophia Beal, Brazil under Construction: Fiction and Public Works (New York: Palgrave Macmillan US, 2013), 79.

<sup>50</sup> Teresa Stoppani, "Dust Revolutions. Dust, Informe, Architecture (Notes for a Reading of Dust in Bataille)," *The Journal of Architecture* 12, no. 4 (September 1, 2007): 4, https://doi.org/10.1080/13602360701614714.

in Copacabana, without risk, without running over, an immaculate physical cleanliness."<sup>51</sup> Then he continues, "For me, one of the fundamental things about Brasília is ... the dust. When we entered the city, a cinnamon–colored dust rose. I then had the idea that after inhaling this glorious emanation, one would breathe fire! ... All of us ... should be soaked in the holy dust of the plateau." <sup>52</sup>

The German philosopher Max Bense, who visited Brasília in 1961, wrote that "the air in Brasília is never just an element of breathing, it is also an element of perception." <sup>53</sup> Invisible to official discourses of national progress, insistently swiped from architectural surfaces, and removed from architectural photographs, the subversive presence of dust destabilized the timeless and autonomous image of modern architecture and planning.

To perceive Brasilia through the fine grains of red dust, is to realize that the city, after being built, could never be fully artificial and modern.

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51 Original quote: "Esse horror granfino ao pó tem, como é óbvio, muito de simbólico. O que se esconde, ou por outra, o que não se esconde por trás dessa alergia é o sonho de uma confortabilissima honestidade em Copacabana, sem risco, sem atropelo, um imaculado asseio físico." In Nelson Rodrígues, "A Derrota dos Cretinos," Última Hora, April 22, 1960.

52 Original quote: "Para mim, uma das coisas fundamentais de Brasília e que, no futuro, devem ser provocadas artificialmente, é o pó. Quando entramos, erguia-se, na cidade, um pó cor de canela. Tive, então, a idéia de que, depois de aspirar essa emanação gloriosa o sujeito venta fogo! ... Todos nós, ... deviam se encharcar do santo pó do planalto." In Nelson Rodrigues, "A Derrota dos Cretinos," Última Hora, April 22, 1960.

53 Max Bense, Inteligência Brasileira: Uma Reflexão Cartesiana (Cosac Naify, 2009), 33.

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