At Home in Twentieth-Century Brazil: An Analysis of Lygia Clark's Models of Homes and Architectural Interiors

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Introduction

Connected to legacies of Russian Constructivism, Dutch Neo-Plasticism, and the School of Design in Ulm, Germany, the constructivist project in Brazil functioned as an integral outlet to experiment with materials, design, and the relationship between the viewer and the art form.\(^1\) In the 1950s and 1960s, Brazilian artists engaged with abstract art under two principal movements associated with constructivism: Concretism and Neoconcretism. Concrete art developed differently in varying cities. Rio-based artists of the Grupo Frente departed from their S\(\tilde{a}\)0 Paulo-based colleagues, Grupo Ruptura, who employed a more rational and geometrically precise approach to their art. In 1959, art critic Ferreira Gullar revolted against concrete art's commitment to mathematics and rationalism and its "sterile nature" and instead advocated for a more participatory interaction between the viewer and the object. Gullar's characteristics formed the backbone of Neoconcretism. It is within the context of Brazil's constructivist project that this present scholarship addresses in relation to new concepts of living space and discussions of housing in the work of artist Lygia Clark, who was affiliated with the Grupo Frente and Neoconcretism.

This article focuses on Brazilian artist Lygia Clark's architectural models of homes and architectural interiors from 1955 and 1960 within the interdisciplinary tendencies of the period, housing architecture, and the Brazilian constructivist project. In doing so, this article addresses the research problem that Clark's works remain largely separated from conversations of modern architecture and housing. Neglecting her engagement with architecture is problematic because she remarked in 1963 that it is not painting or sculpture that interests her the most, but rather architecture and music. Using social art historical analysis, this article argues that Clark's models of homes and architectural interiors from 1955 and 1960 played vital roles in her career: (1) They served as the ideal avenue for Clark to re-imagine her geometric paintings as three-dimensional architectural models through concrete and neoconcrete strategies; and (2) They constructed models of living that encourage individuality and spatial fluidity. This article expands on current scholarship to account for the understudied connections between Clark's models of homes and architectural interiors from 1955 and 1960 and overlooked contexts such as constructivism, interdisciplinary networks of Brasília, and housing architecture. As such her maquettes have the potential to break stylistic perceptions about the organization of the home and the role of residents in home design.

Architecture: An Overlooked Component of Clark's Career

As a well-known artist in the field of modern and contemporary art, Lygia Clark has received a vast amount of attention and recognition, both locally and abroad. Much of her popularity

¹ Ronaldo Brito, Neoconcretismo, Malasartes, Rio de Janeiro (abr./jun. 1976): 9–3. Archive: Serviço de Biblioteca e Documentação ECA/USP.

extends from her diverse artistic production and prolific exhibition history across Latin America, the United States, and Europe. And while Clark's legacy is established in the arts, particularly in discourses of painting, sculpture, and participatory objects, her connection to architecture remains understudied and often overshadowed by other works. To address this gap in scholarship, this article requires interventions in and departures from three bodies of scholarship: (1) primary sources from the 1950s by local art critics; (2) long time interlocuters of Clark's works; and (3) recent exhibitions and secondary scholarship about Clark concerning the status of the art-object.

During Clark's lifetime, a core group of Brazilian art critics, including Mário Pedrosa and Ferreira Gullar wrote critical documents about important moments in Clark's career. In his review for the *Grupo Frente* exhibition at the Museu de Arte Moderna in Rio de Janeiro in 1955, Mário Pedrosa addressed Clark's ambition for architectural integration. He wrote that walls, doors, and furniture in her models became outlets for Clark to connect with her environment outside of the canvas. This present article pushes beyond this analysis to assert that Clark's interests in architecture extended beyond her models because they engage with elements of modern homes. Ferreira Gullar wrote "Theory of the Non-Object" (1960) and "The Neo-Concrete Manifesto" (1959), both of which detail core components of Clark's legacy. These components include her works' non-conformity to characteristics of painting and sculpture and her interest in participatory practices. Like Pedrosa, Gullar emphasized Clark's interest in everyday life, not just the space of the canvas.

Long time interlocuters Guy Brett (1994), Yve-Alain Bois (1994), and Suely Rolnik (1996) investigated Clark's involvement with the Brazilian art movements Concretism and Neoconcretism in the 1950s, her encouragement of participation in later installations from the 1960s, and her turn towards therapeutic objects. In the *October 69* issue from 1994, Bois wrote that Clark looked to the contents of the home, such as boxes, rubber bands, and tables as sources of engagement. He emphasized that Clark interacted with objects of the home to create relationships between herself and society. Similarly, Suely Rolnik (1996) analyzed Clark's incorporation of the body in her later installations to make space more dynamic, participatory. This present article posits that Clark's use of space and participation achieves even more meaning when applied to her architectural maquettes.

This article expands the recent scholarship produced in secondary scholarship by Mónica Amor (2016) and Sérgio B. Martins (2013). Both Martins and Amor examine the status of the sculptural and painterly object in the concrete and neoconcrete movements for artists practicing in South America. Martins focuses on Brazil while Amor specializes in Brazil, Argentina, and Venezuela. These two scholars also explain how Brazil's neoconcretists reinterpreted the art object and pursued different aesthetics than Europe and the United States. This article extends beyond Martins and Amor's assertions to argue that Clark's models are more than just a reinterpretation of an art object, but rather a new art form altogether. Similar to earlier bodies of scholarship, there is no connection between Clark's models and modern architecture.

Clark's architectural models have been displayed in a variety of recent solo exhibitions such as Lygia Clark: Painting as an Experimental Field, 1948–1958 (Guggenheim Bilbao, Spain, 2020, curated by Geaninne Gutiérrez-Guimarães), Lygia Clark: Work from the 1950s (Alison Jacques Gallery, London, 2016), and Lygia Clark: The Abandonment of Art (The Museum of Modern Art, New York, 2014, curated by Cornelia H. Butler and Luis Pérez-Oramas). Geaninne Gutiérrez-Guimarães contributes an insightful analysis about Clark's training with Roberto Burle Marx and Fernand Léger that complements Clark's text, Uma experiência de integração [An Experience of Integration] (1956). In the exhibition catalogue for Lygia Clark: Painting as an Experimental Field, 1948–1958, Adele Nelson mentions Clark's possible collaborations with Oscar Niemeyer on his Conjunto Kubitschek (1951) in Belo Horizonte and Leopoldo Teixeira Leite for a school in Itatiaia in Rio de Janeiro. While the details of both projects remain unknown, these connections suggest that Clark intended to expand beyond the maquette stage of the design process.²

² Adele Nelson, "On Gender and Surface in Lygia Clark's Early Abstraction," in Lygia Clark: Painting as an Experimental Feld 1948–1958 (Madrid: La Fábrica, 2020), 63.

Lygia Clark: The Abandonment of Art (2014), curated by Cornelia H. Butler and Luis Pérez-Oramas, provides the most in-depth discussions of Clark's representations of architecture. Pérez-Oramas posits that Clark thought of painting in architectural terms and that her paintings functioned topologically. He asserts that her paintings behaved as "an operator of place—of coordinators, shelters, and home." Zeuler de A. Lima addresses key moments that emphasize Clark's shift toward architectural thinking such as her lecture in 1956 at the Escola Nacional de Arquitetura in Belo Horizonte. 4 This present article intervenes in this scholarship by Pérez-Oramas and Lima by strengthening Clark's engagement with architecture through her connections to Brasília and the rise of the modern home in Brazil.

"The Golden Years:" The Cultural Context of Clark Maquettes

Clark produced her maquettes of homes and architectural interiors during Juscelino Kubitschek's presidency (1956–1961). When Kubitschek won the presidency, he instigated an era in Brazilian history known as the "Golden Years," not because of a lack of political and social unrest, but rather because of its emphasis on infrastructure and economic growth. While Brazil had already established self-sufficiency in sectors of food, drink, and textiles in the 1940s, it was not until the 1950s that the production of steel and other products such as gasoline, asphalt, and plastic became more widespread, rather than relying on imports as Brazil had done in the past. As a result of this new dynamic, by the end of the 1950s, ten car factories were in operation in Brazil.5 Kubitchek's five-year term also initiated a stage of modernization by using architecture as symbols for Brazilian modernism. While scholarship primarily associates Kubitschek with the overseeing of Brasília's construction, he also commissioned Oscar Niemeyer to design the Pampulha Complex in the 1940s, which is recognized as one of the first instances of Brazilian modern architecture. Such details emphasize that Clark's turn towards architecture correlated with a moment in history when her country was looking towards architecture as harbinger of identity on local and global stages.

The 1950s and 1960s also included an expansion of areas of communication in print advertising and technology, which facilitated the absorption of consumerist attitudes. For example, the magazine O Cruzeiro, which disseminated information about fashion, sports, cooking, and other subjects, had an average print run of 500,000 copies per week.⁶ In the same decades, international exposure for domestic housing projects also intensified. Capitalizing on the publicity and popularity of the exhibition Brazil Builds: Architecture New and Old, 1652-1942, held at the Museum of Modern Art in 1943, Stamo Papadaki published two monographs on Oscar Niemeyer in 1950 and 1960. In 1955, Henry-Russell Hitchcock wrote Latin American Architecture Since 1945. In 1956, Henrique Mindlin released Modern Architecture in Brazil and Sigfried Giedeon and Klaus Franch co-wrote The Works of Affonso Eduardo Reidy. In conjunction with publications about modern architecture, access to radio and television increased, which encouraged similar tendencies of exposing audiences to the latest consumerist trends of the home. Acknowledging the cultural context of Clark's maquettes highlights the immediacy of studying her maquettes in greater detail in relation to artistic process, issues of housing, and architecture.

³ Luis Pérez-Oramas, "Lygia Clark: If You Hold a Stone," in Lygia Clark: The Abandonment of Art, 1948-1988, eds. Cornelia H. Butler and Luis Pérez-Oramas (New York: The Museum of Modern Art, 2014), 37.

⁴ Zeuler R. M de A. Lima, "Ceci N'est Pas Un Mur: The Architecture of Organic Lines," in Lygia Clark: The Abandonment of Art, 1948-1988, eds. Cornelia H. Butler and Luis Pérez-Oramas (New York: The Museum of Modern Art, 2014), 73.

⁵ Cleber Dias and Victor de Andrade Melo, "Leisure and urbanisation in Brazil from the 1950s to the 1970s," Leisure Studies 30 (2011): 335-336.

⁶ Sergio Delgado Moya, Delirious Consumption: Aesthetics and Consumer Capitalism in Mexico and Brazil (Austin: University of Texas Press, 2017), 15.

Concrete Strategies in Lygia Clark's Maquettes from 1955

Clark's architectural maquettes from 1955 function as an integral step in the design process and reflect constructivism's emphasis on concrete strategies in the mid-1950s. This section contextualizes her two maquettes from 1955, both entitled *Maquete para interior* [Maquette for Interior], with her affiliation with the Grupo Frente, who was associated with concrete art through their abstract and geometric objects and compositions. For Clark, architectural models also provided opportunities for experimentation with formal principles of design, materials, and artistic process. In doing so, she re-imagined two-dimensions compositions as three-dimensional objects.

While it should be emphasized that Clark's maquettes did not become built forms, they still functioned as a vital outlet for Clark's engagement with Concretism. In her architectural models of interior spaces from 1955, Clark used wood. In a description of making her *Superficies Moduladas* [Modulated Surfaces] (1955–1959) — which coincided with her maquette production in 1955 — Clark wrote that her process was more than just painting canvases because it involved sanding, sawing, and smoothing, processes typically associated with wood. In an interview from 1957, she also stated that she worked as an apprentice in a carpentry workshop for two months to gain a "profound intimacy" with wood and its properties.⁷ These details emphasize a characteristic of concrete art, namely the diminishing mark of the artist's hand as seen through the use of tools to cut wood and lack of painterly marks. For her maquettes from 1955, Clark applied automotive paint on wood, which reflected another characteristic of Concretism, the use of industrial surfaces and materials. When Clark used automobile paint on her models in 1955, Brazil was in in the middle of automobile craze. By the beginning of the 1960s, construction laws in some regions in Brazil changed to reflect the growing numbers of cars by requiring homes to have their own garages.⁸

The walls of Clark's maquettes look similar to her earlier compositions, which emphasizes larger tendencies of the constructivist project: migrations between media. In *Maquete para interior* [Maquette for Interior] (1955), Clark included pockets of green, blue, black, and gold against a silver wall (Fig. 1). She employed a similar technique in *Superficie modulada no. 5* [Modulated Surface No. 5] (1955), wherein off-white and black "slits" occupy a lime green background (Fig. 2). Examining these works in tandem highlights Clark's expansion of the "organic line," which she first regarded as the physical space or slits in pieces of a composition and later, as openings such as windows and doorframes in her maquettes.

Maquete para interior [Maquette for Interior] (1955) operates in a similar manner as Maquete para interior [Maquette for Interior] (1955) by recreating prior compositions in three-dimensional forms (Fig. 3). Maquete para interior [Maquette for Interior] (1955) includes varying colored square and rectangular sections, a similar geometric pattern found in her Composição [Composition no. 2] (1954) (Fig. 4). In recent secondary scholarship from 2014 in relation to Clark's migration between media, Luis Pérez-Oramas wrote, "so we can say that she initiated her greatest contributions to modernist abstraction by thinking — and perhaps also painting — as if she were an architect." Clark's inclusion of a swivel door, a bench, and a small table in Maquete para interior [Maquette for Interior] (1955) strengthens Pérez-Oramas's assertion because it shows how she contributed to modernist thinking by reimagining geometric

⁷ Diário de Notícias, "Prêmio 'Diário de Notícias' na IV BIENAL," Revista Feminina - Jornal Diário de Notícias (13 October 1957): 9; Giulia Giovani et al., "The Use of Industrial Paint on Wood by Lygia Clark," Studies in Conservation 61 (2016): 292, primary source reproduced in article.

⁸ Dias and Melo, "Leisure and urbanisation," 335-336.

⁹ Clark titled both maquettes from 1955, Maquete para interior [Maquette for Interior] (1955).

¹⁰ Pérez-Oramas, "Lygia Clark," 37. Paulo Herkenhoff details Clark's study with Fernand Léger from 1950 to 1952, who at that point in his career, was "thinking like an architect" in his attempt to blend art and architecture; Paulo Herkenhoff, "Lygia Clark," in Lygia Clark (Barcelona: Fundació Antoni Tàpies, 1998): 36–37.







Fig. 1: Lygia Clark, *Maquete para interior* [Maquette for Interior)] (1955). Fig. 2: Lygia Clark, *Superficie modulada no. 5* [Modulated Surface No. 5] (1955).

Fig. 3: Lygia Clark, *Maquete para interior* [Maquette for Interior] (1955).

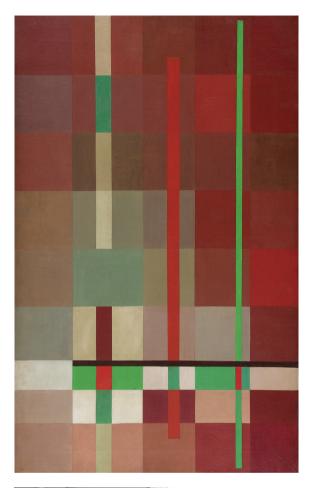




Fig. 4: Lygia Clark. *Composição* [Composition no. 2] (1954). Fig. 5: *Varanda*.

planes as objects, rather than just a composition panel (Fig. 3). For Clark, the rectangular pattern highlights her role as a concretist through her use of geometric abstraction. In some of her writings, Clark wrote, "If the Concretes compose with equal spaces and similar forms' there is already the establishing of a relationship between an architectural module and Concrete painting itself."11 Her viewpoint demonstrates that Concretism was more than geometric abstraction, but also a way to connect to architecture and the world around her.

Both Maquete(s) para interior [Maquette(s) for Interior] (1955) depict shallow spaces with little depth, a characteristic that also embodies the layout of verandas, a common feature of modernist homes in Brazil. This transitional area between indoor and outdoor space includes a concrete canopy supported by thin metal columns (Fig. 5).¹² In cities such as Belo Horizonte — Clark's birthplace — modern homes were a popular choice for middle-class Brazilians in the 1950s and are still popular because of their ability to provide shade. With 92 percent of Brazil located within a tropical zone, verandas play an important role in protecting from intense sunlight and rainfall. Their versatility also should be emphasized as verandas could be adapted to apartments and stand-alone houses. Their use was not just limited to upper- and middleclass residents because they have been found in lower class dwellings as well. When Clark made her first maquette in 1955, she was living in Rio de Janeiro. However, the use of verandas was widespread in multiple cities outside of Belo Horizonte including the cities of Rio and São Paulo in addition to Aracaju in the Northeast and Campo Grande in the Central-West.¹³

Clark's incorporation of modernist elements of the home, such as verandas, function as part of larger historical moments. In a recent study of Brazilian domestic architecture, Fernando Lara explains, "as Dell Upton and John Vlach point out, about 95% of the built environment is not designed by architects, and Brazil of the 1950s is no exception."¹⁴ In many of these cases, middle-class residents in cities such as Belo Horizonte helped to design their homes without the advice of trained architects and instead relied on contractors and laborers. 15 It can be argued as well that in Brazil's case specific social factors spurred residents to design their own homes. Between 1950 and 1959, Brazil's population grew by thirteen million, the access to more educational opportunities increased, and the economy expanded by 5.9% percent annually.¹⁶ These changes led to a growing middle-class, whose increasing disposable income boosted their ability to purchase their own homes, which often displayed modernist vocabulary rather than more traditional styles, mostly associated with vernacular structures. Architectural elements such as verandas, in-sloping butterfly roofs, out-sloping facades, and brise-soleil function as a reminder of those devices once used to convey modernity in residential spaces make a connection seldom seen with such intensity outside Brazil.

1956: A Key Year for Clark's Architectural Journey

After 1955, Clark continued her engagements with architecture and strategies of the constructivist project in relation to her stated support of integrative approaches to the arts. In the paragraphs that follow, this article discusses important events of 1956 such as her lecture at the Escola Nacional de Arquitetura at [National School of Architecture], architects' positive receptions of her

¹¹ English translation from "Conference given in the Belo Horizonte Nacional School of Architect in 1956," in Lygia Clark, (Barcelona: Fundació Antoni Tàpies, 1998), 55; Lima, "The Architecture of Organic Lines," 73.

¹² Fernando Luiz Lara, Rise of Popular Modern Architecture in Brazil (Gainesville: University Press of Florida, 2008), 40; Fernando Luiz Lara, "Modernism Made Vernacular: The Brazilian Case," Journal of Architectural Education 63, no. 1 (October 1, 2009): 44.

¹³ Helena Coch and G. Maragno, "Integrated environmental response of shaded transitional spaces in hot climates: the design of the Brazilian veranda," PALENC 2010.

¹⁴ Lara, Rise of Popular Modern Architecture, 10; Dell Upton and John Vlach, Readings in American Vernacular Architecture (Athens: University of Georgia Press, 1986), xvi.

¹⁵ Lara, Rise of Popular Modern Architecture, 1, 5, 9.

¹⁶ Ibid. 23.

architectural experiments in Belo Horizonte, her article "Uma experiência de integração" [An Experience of Integration] (1956), and interdisciplinary training in early stages of her career.

In her lecture at the Escola Nacional de Arquitetura in fall of 1956 in Belo Horizonte, Clark encouraged collaborative work between artists and architects and integrative techniques between the arts. She instructed artists to look beyond painted walls as just decoration to recognize their role within the whole environment. In doing so, she stressed the fusion of art and life and "that humans cannot be unconcerned by their lived environment." Prior to this lecture, prominent architects praised Lygia Clark's architectural experiments in a series of letters and notes from March 1956. Oscar Niemeyer remarked, "her modules and rhythms enrich and discipline" architecture, suggesting her ideas expanded beyond the canvas. Affonso Eduardo Reidy emphasized Clark's interests to integrate painting in architecture. Her lecture in Belo Horizonte, in "Uma experiência de integração" [An Experience of Integration] (1956), Clark stated that artists and architects should work together. These details regarding architects' recognition of her work and the inclusion of "Uma experiência de integração" [An Experience of Integration] (1956) in the journal, Arquitetura Contemporânea, demonstrates that Clark's viewpoints extended beyond circles of artists and exhibitions into the discipline of architecture.

Clark's training with landscape architect Roberto Burle Marx and painter and architect Fernand Léger foreshadowed her beliefs in 1956. From 1947–1949, Clark worked with the landscape architect, Roberto Burle Marx, whose own training also began in painting. During her apprenticeship with Burle Marx, Clark painted compositions with organic elements formed by curvilinear lines displaying a visual rhythm that looked similar to many of Burle Marx's later garden layouts. After her studies with Burle Marx, Clark moved to Paris in 1950 to study with Léger who, at that point in his career, was "thinking like an architect" in his attempt to blend art and architecture. Such attempts pertain to Léger's concepts: *parois vivantes* [living walls] and *rectangles habitables* [inhabitable rectangles]. In his mural paintings for the 1925 The New Spirit Pavilion at the International Exposition of Decorative Arts in Paris, Léger painted vertical and horizontal bands for a wall, rather than a composition bound by a frame. As evidenced in this article, Clark also used geometric paneling that looked similar to prior compositions as walls in some of her maquettes. Clark's integrative approach to the arts appeared in larger artistic circles surrounding the construction of Brazil's new capital Brasília (1956–1960) and in many ways foreshadows Brasília's goals.

Brasília: "The New City - the Synthesis of the Arts"

Like Clark's maquettes from 1955 that function as concrete strategies, Brasília also operated as part of the constructivist project through its association with collective art and ties to values of Concretism.²² This section of the article details Brasília's connections with collective art through prominent figures associated with its construction and planning, including urban designer Lúcio Costa, architect Oscar Niemeyer, and art critic Mário Pedrosa. In connection to Clark,

¹⁷ Lygia Clark, Conferência pronunciada na Escola Nacional de Arquitetura em Belo Horizonte [diário 4]. Archives of the Associação Cultural "O Mundo de Lygia Clark," Rio de Janeiro.

¹⁸ Oscar Niemeyer Filho, "De Oscar Niemeyer Filho para Lygia Clark," Archives of the Associação Cultural "O Mundo de Lygia Clark," Rio de Janeiro. "São modulos e ritmos, que enriquecem e disciplinam".

¹⁹ Affonso Eduardo Reidy, "Affonso Eduardo Reidy para Lygia Clark," Archives of the Associação Cultural "O Mundo de Lygia Clark".

²⁰ Lygia Clark, "Uma experiência de integração" [An Experience of Integration], Brasil - Arquitetura Contemporânea, no.8 (1956): 45. ICAA Online Archive.

²¹ Jacques Leenhardt, "Playing with Artifice: Roberto Burle Marx's Gardens," in *Relating Architecture to Landscape*, edited by Jan Birksted (London and New York: Routledge, 1999), 72.

²² Mário Pedrosa, *Dos murais de Portinari aos espaços de Brasília* [From the Murals of Portinari to the Spaces of Brasília] (São Paulo: Perspectiva, 1981), 310, 352.



Fig. 6: Lygia Clark, Grega no. 4 [Greek no. 4] (1955).

it relates her integrative techniques to her *Gregas* series (1955) to establish that Clark pursued similar aesthetic interests and conditions as those surrounding Brasília.

Two competing ideas of artistic integration were present in Brazil at that time: the first developed from the Bauhausian and Wagnerian *Gesamtkunstwerk* that encouraged more equal footing among the arts; the other was developed from Le Corbusier's version of *synthèse des arts*, which regarded architecture as the highest form that could "synthetically assimilate the plasticity of sculpture and painting." ²³ In their respective practices, Lúcio Costa and Oscar Niemeyer followed some of Le Corbusier's mindset, while art critic Mário Pedrosa encouraged more of a mutual synthesis in the arts. ²⁴ Despite Costa and Niemeyer's more rigid version of a *synthèse des arts*, Pedrosa viewed Costa's Pilot Plan for Brasília in an overwhelmingly positive light because of its conception of the city as a whole rather than a sum of individual pieces and focus on the role of a thinker, rather than of a technician. ²⁵ Partly responsible for Brasília's planning and construction, Kubitschek also praised Costa's Pilot Plan for its harmonization between landscape design, architecture, and urban design. ²⁶ This integrative approach also appeared in the title of an international congress centered around Brasília.

Pedrosa's term, "The New City, the Synthesis of the Arts," later referred to the title of the Congress, hosted by the International Association of Art Critics in September 1959.²⁷ Organized by Pedrosa, "New City, Synthesis of the Arts" began in Brasília with opening session remarks given by President Kubitschek, then moved to São Paulo for the V Biennial, and ended in Rio de Janeiro at the Museu de Arte Moderna (MAM Rio). The MAM Rio's itinerary included sessions about fine art, architecture, urbanism, and art education. For example, Meyer Schapiro presented the paper, "A pintura e a escultura no coletivo urbanístico e arquitetônico" [Painting and Sculpture in the Urban and Architectural Collective], which encouraged designers to erect work that is both artistic and technical.²⁸ In "As Artes Industriais na Cidade Nova" [Industrial Arts in the New City], which was published in the same issue of the architecture journal, *Habitat* as Schapiro, Gillo Dorfles encouraged a relationship between technical aspects and artistry on the part of the "artistic-creator."²⁹

²³ Guilherme Wisnik, "Brasília: The City as Sculpture," in *Das Verlagen nach form – O desejo da forma* [The Desire of Form], ed. Robert Angela Lammert and Luiz Camilo Osório (Berlin: Akademie der Künste, 2009), 276–299; Sérgio B. Martins, *Constructing an Avant-Garde Brazil 1949–1979* (Cambridge: MIT Press, 2012), 89.

²⁴ Wisnik, "Brasília: The City as Sculpture," 276-299.

²⁵ Pedrosa, Dos murais de Portinari, 310.

²⁶ Lauro Cavalcanti, "When Brazil was Modern: From Rio de Janeiro to Brasília," in Cruelty and Utopia: Cities and Landscapes of Latin America, ed. Jean-François Lejeune (New York: Princeton Architectural Press, 2006), 169.

²⁷ Martins, Constructing an Avant-Garde, 89.

²⁸ Meyer Schapiro, "A pintura e a escultura no coletivo urbanístico e arquitetônico" [Painting and Sculpture in the Urban and Architectural Collective], *Habitat* 11, no. 58 (1959): 4–5. ICAA Online Archive.

²⁹ Gillo Dorfles, "As Artes Industriais na Cidade Nova" [Industrial Arts in the New City], Habitat 11, no. 58 (1959): 4–5. ICAA Online Archive.

In her practice, Clark foreshadowed many of Dorfles and Schapiro's ideas presented in their papers. Seeking to make environments more expressive, Clark sought a direct relationship between architectural modulation and painting. In her *Gregas* series (1955), Clark integrated geometric patterns that re-create patterns from classical architecture, such as Greek meanders.³⁰

Made during her affiliation with the Grupo Frente, *Grega, no. 4* [Greek, no. 4] (1955), she employed geometric and repetitive patterns, not as a sinuous configuration but as a tectonic and interlocked composition (Fig. 6).³¹ Referring to them as orthogonal models, Clark described them as simulating architectural interiors that could be utilized in varying functions from theater sets to public housing.³² If examining *Grega, no. 4* [Greek, no. 4] (1955) in connection to public housing, the interlocked geometric pattern could represent an architectural plan or the home as prefabricated parts. According to recent scholarship by Fernando Lara, little prefabrication occurred during this time in Brazil. Lara writes that when Walter Gropius saw Oscar Niemeyer's home in Canoas in 1955, he remarked that while it was beautiful, it could not be prefabricated or mass produced.³³ Given these details, it would be significant if Clark was interested in developing a model that could introduce new housing layouts in Brazil. Five years after her *Gregas* series (1955), Clark expanded her models of architectural interiors to a model of home, while a part of the neoconcrete group.

Neoconcrete Concerns: Build Your Own Living Space with Lygia Clark

Tired of the rational and geometrically precise motives of concrete art, Ferreira Gullar along with artists Amilcar de Castro, Franz Weissmann, Lygia Clark, Lygia Pape, and poets Reynaldo Jardim and Theon Spanudis co-founded Neoconretism. In 1959, this group co-signed the "Manifesto Neoconcreto," which suggested a revaluation of Neo-Plasticism and Constructivism by emphasizing the power of expression rather than scientific theories. Throughout the "Manifesto Neoconcreto" (1959), Gullar referenced pertinent European artists who impacted neoconcretists, such as Mondrian who destroyed the plane, and Malevich who encouraged autonomous art. Using the term, quasi-corpus, instead of object or machine to describe an artwork, they placed artistic creations within a bodily matrix that integrates the viewer in ways that expand beyond sight. For the quasi-corpus attains "life" through its relation to the viewer and the integration of its environment. Clark made *Construa você mesmo o seu espaço de viver* [Build Your Own Living Space] (1960) during her affiliation with Neoconcretism and it reflects many of the movement's core qualities through its emphasis on participation. Its qualities of spatial fluidity and individuality intensify when compared to Brasilia's superquadra, SQS 308 (1960) and its resonances with more concretist concerns.

Construa você mesmo o seu espaço de viver [Build Your Own Living Space] (1960) includes a gridded layout with movable wooden partitions atop a drawing board (Fig. 7). And while the grid is typically associated with geometry and order and connections to the antireal and antinatural, Clark counteracts such ideas because of its movable partitions that enable multiple layouts of space.³⁶ A clear sheet covers this ensemble, rather than a roof, which allows an

³⁰ Lima, "Ceci N'est Pas Un Mur," 73.

³¹ Nelson, "On Gender and Surface," 75.

³² English translation from "Conference given in the Belo Horizonte Nacional School of Architect in 1956," in Lygia Clark, (Barcelona: Fundació Antoni Tàpies, 1998), 55; Lima, "The Architecture of Organic Lines," 73.

³³ Fernando Luiz Lara, "Brazilian Popular Modernism: Analyzing the Dissemination of Architectural Vocabulary," *Journal of Architectural & Planning Research* 23, no. 2 (Summer 2006): 92.

³⁴ Ferreira Gullar, "Manifesto Neoconcreto," *Jornal do Brasil: Suplemento Dominical* (Rio de Janeiro, Brazil), March 21–22, 1959: 47.

^{35 &}quot;Mondrian o destrutor do superfície, do plano, da linha, se não atentamos para o novo espaço," Gullar, "Manifesto Neoconcreto," 47.

³⁶ Rosalind Krauss, "Grids," October 9 (1979): 52.



Fig. 7: Lygia Clark. Construa você mesmo o seu espaco de viver [Build Your Own Living Space] (1960), partly restored maquette.

unobstructed view of its contents. With this maquette, Clark emphasized the importance of being able to customize living space to shift the universality of geometry to a more unique and interactive relationship between viewer and object. For example, Clark left each room empty except for a bench in one of the central compartments, as if to encourage residents to choose their own ornamentation. Clark's inclusion of furniture suggests the possible influence of the maquette's co-collaborator, architect and furniture designer, Sergio Rodrigues.³⁷ Like Clark, Rodrigues believed that the body played an important role in his art. Much of his furniture conformed to the natural shape of the body and is described as organic sculpture because of such associations. Similarly to Clark, he also supported an integrative approach to the arts because he viewed his furniture as a work of art as opposed to a merely functional piece. His frequent use of wood in his furniture designs also correlated with Clark's methods, who regularly used the same material.³⁸

Clark made Construa você mesmo o seu espaço de viver [Build Your Own Living Space] (1960) for personal reasons. Interested in buying land, she wanted to design a new residence for her family. While this building was never realized, it emphasizes that she intended to put her ideas into practice before losing the opportunity to purchase the land. Clark described the model:

"The house would be made very simply, and I thought of making the project myself. So I then made a drawing in which there was a fixed nucleus, around which one circulated during the day, and, at night four compartments were closed in."39

Clark viewed many of her artworks as "living" organisms such as her *Bichos* [Critters] series (1960–1965), because they acquired meaning through participants' movement of their metal hinges, which she called a backbone.

According to Alison Jacques Gallery, which displayed the maquette in the exhibition Lygia Clark: Work from the 1950s (June 3 to July 30, 2016), Construa você mesmo o seu espaço de viver [Build Your Own Living Space] (1960) reflected Clark's

³⁷ Caixa Cultural, Diálogo Concreto: Design e Constructivismo no Brasil, com curadoria Daniela Name (Rio de Janeiro: Produção Tisara, 2008), 22.

³⁸ Instituto Sergio Rodrigues, "Biography," accessed November 1, 2021, http://www.institutosergiorodrigues. com.br/Biography/14/Furniture-as-an-Object-of-Art.

³⁹ Lygia Clark, "Build Your Own Living Space," In Lygia Clark (Barcelona: Fundació Antoni Tàpies, 1997), 180.

"dream for an entire building in which the visitor can change the configuration of rooms via a series of sliding walls, demonstrating her vision of audience participation and a living or organic sculpture."40

The slidable partitions between rooms in *Construa você mesmo o seu espaço de viver* [Build Your Own Living Space] (1960) thus altered the meaning of the maquette to reflect a more fluid and less rigid organization of space that incorporated the viewer as a participant. The meaning of Clark's maquette intensifies when juxtaposed with housing layouts in Brasília from the same year 1960.

A comparison between Clark's Construa você mesmo o seu espaço de viver [Build Your Own Living Space] (1960) and the interior layout of Brasilia's superquadra SQS 308 is justified for multiple reasons. Both SQS 308 and Clark's Construa você mesmo o seu espaço de viver [Build Your Own Living Space] (1960) were produced in the same year, at a time in Brazil where artists and architects frequently collaborated with each other and crossed disciplines. It was also speculated that Clark and Niemeyer, the architect of the superquadra, worked together on the design of Conjunto Kubitschek (1951). In 1956, several influential Brazilian architects including Niemeyer wrote letters commending Clark's architectural experimentations "whose modules enrich and discipline architecture." Frequent collaborator of Niemeyer, Roberto Burle Marx also worked with Clark in early stages of her painting career. First, the superquadra is contextualized within Lúcio Costa's Pilot Plan of Brasília and then the superquadra's exterior appearance and organization is addressed in relation to concerns of Concretism, followed by a comparison between Clark's model and SQS 308's typical apartment layout.

Prior to Brasília's construction, a committee chose Costa's Pilot Plan that included two axes: a horizontal area for residential buildings and a monumental vertical band for governmental structures. Located on the horizontal axis of Costa's Pilot Plan, *superquadras* exhibited the International Style as evidenced through reinforced concrete, glass, flat roofs, and *pilotis*. Functioning as rectangular residential blocks, Costa specified in his plan that each *superquadra* should be no taller than six stories and should operate as part of a neighborhood with schools, shops, and other stores. The north side contained a more varied style with colored glass, balconies, and rooftop terraces. The south side displayed a much more rigid homogeneity and included façades with horizontal bands of concrete with small perforations and no windows on one side of the façade. The standardized patterns of architecture exhibited in many of the *superquadras* facades reflected modernist technological innovations due to increased access to building materials and the frequent use of non-load bearing glass curtains in modern architecture. In this case, the façade functions as both a tangible and ideological instrument of the modernist city.

The *superquadras*' connection to the modernist city also correlates with Concretism. For example, concrete artists aimed to coordinate abstraction with the rationalized principles of a well-organized, modernist city. Residents' addresses include acronyms that specify their *superquadra* number, bloc number, and house letter. An example is SQS 704, Bloco Q, Casa 29.

⁴⁰ Alison Jacques Gallery, "Lygia Clark: Work from the 1950s," accessed May 15, 2021, https://alisonjacques.com/exhibitions/137-lygia-clark-work-from-the-1950s.

⁴¹ Oscar Niemeyer Filho, "typed note, March 8, 1956," Archives of the Associação Cultural "O Mundo de Lygia Clark," Rio de Janeiro.

⁴² Lúcio Costa, "Relatório do plano pilôto de Brasília" [Report of the Pilot Plan of Brasília], *Módulo* 3, no. 8 (1957): articles 1–4.

⁴³ Sophia Beal, "The Real and Promised Brasília: An Asymmetrical Symbol in 1960s Brazilian Literature," *Hispania* 93, no. 1 (2010): 9.

⁴⁴ Costa, "Plano pilôto," article 16.

⁴⁵ Martino Tattara, "Brasilia's Superquadra: Prototypical Design and the Project of the City," *Architectural Design* 81, no. 1 (2011): 46–55.

⁴⁶ Holston, Modernist City, 183-184.

Parallel avenues called L2 and W3 organized each *superquadra*.⁴⁷ These details suggest a rational and mathematical organization of space, qualities of concrete art. *Superquadras* also reflect components of an assembly line, such as order, repetition, and regulation, wherein each part functions as part of the larger community because *superquadras* functioned as zoned collective dwellings. For example, Costa described the *superquadras* as "an uninterrupted sequence [...] a linked series." Superquadra's associations with order and regulation continue in their interior.

In an apartment plan in SQS 308, there is no nucleus in the center but rather more separated rooms. For example, three bedrooms and living room are present on one side of the apartment and two bathrooms, a kitchen, service areas, and eating area on the other side, a typical layout for middle to upper middle-income apartments. ⁴⁹ One *sala* [living room] functions as the primary social space. Perhaps these changes increased usage of collective facilities for each *superquadra*, rather than a more private and interior lifestyle within the apartment. When compared with Clark's maquette, SQS 308's plan qualities become even more pronounced. While Clark's maquette encourages circulation and a more connected configuration of rooms because of its slidable partitions, a typical apartment in Brasília has more clearly delineated and stationary boundaries between rooms. ⁵⁰

While certain differences between Clark's 1960 maquette and SQS 308 should be accounted for, these discrepancies should not overshadow the perspectives gained through their comparison. Some of these discrepancies include that SQS 308 pertained to apartment-style housing, while Clark's model was for a stand-alone, single-family house. Clark's model remained a model, while Niemeyer's reached its final form and still stands today. Despite these details, a lot is learned from Clark's call to "Build Your Own Living Space." Her maquette encourages people to re-think the boundaries that make a home, whether through a wall or a door. This re-imagining of interior layouts facilitates heightened awareness of how one interacts in the home both spatially and culturally. When boundaries remain firm in SQS 308, it spurs another set of questions; ones that question long held beliefs of architecture related to the organizational value of grid and the autonomous role of the architect, rather than increasing roles of residents in home design. This article shows that there is no doubt that the home functions as a critical aspect of material culture within discourses of both art and architecture.

Conclusion

In describing the period of her maquettes, Clark reflected: "What I seek is to compose a space and not compose in it." These words suggest that Clark's models offered a more active and expansive outlet for creativity as opposed to remaining within the confines of a two-dimensional plane. As a result of this expansion, her maquettes instigated a new chapter in her career that can offer new possibilities for organizing living spaces by confronting issues of homogeneity and the grid as solely a mode of standardization and stagnation. As such her maquettes have the potential to break stylistic perceptions about the organization of the home and the participation of residents in home design. In doing so, this scholarship expands upon Clark's models of homes and architectural interiors in overlooked contexts such as constructivism, interdisciplinary networks, and housing architecture. While none of her maquettes became buildings, her maquettes still exist as reminders of some of her central goals: to build a home and to fuse art and life.

⁴⁷ Deckker, "Brasília: Life Beyond Utopia," 90.

⁴⁸ Costa, "Plano pilôto," article 16.

⁴⁹ Holston, Modernist City, 171-176.

⁵⁰ Alison Jacques Gallery, "Lygia Clark: Work from the 1950s," accessed February 21, 2021, https://alisonjacques.com/exhibitions/137-lygia-clark-work-from-the-1950s.

⁵¹ Maria Hirszman, "The Importance of Lygia Clark," accessed April 1, 2021. https://revistapesquisa.fapesp. br/en/importance-lygia-clark/.

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