

The migration of Concretist thought between Latin America and Europe: Max Bill, Kázmér Fejér, Tomás Maldonado and Georges Vantongerloo

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ABSTRACT This paper traces the migration patterns and artistic itineraries of Concrete artists active in Argentina, Uruguay, Brazil, Switzerland, France and Germany from the mid-1940s to the 1970s. Given the impediments posed by the physical distance between the two continents, the artists' exchanges were surprisingly active and multidirectional. The flow of ideas will be shown to have been particularly fertile between Georges Vantongerloo in Paris and some members of the Buenos Aires-based Asociación Arte Concreto-Invención (AACI), who began to flock to Paris on their 'Concrete Grand Tour' from the late 1940s. New research on Vantongerloo's artistic theories and painting technique illuminates how he came to play such a prominent role in their artistic careers. The essay also examines how the nexus created at the relatively short-lived Hochschule für Gestaltung in Ulm, where Max Bill, Josef Albers and Tomás Maldonado educated students from both continents, came to exert such long-lasting effects. And lastly, new insights are offered on the highly idiosyncratic trajectory of Hungarian-born Kázmér Fejér who, as a sculptor, painter and industrial chemist, occupied a crucial role in São Paulo-based Grupo Ruptura's experimentation with new materials. He not only introduced a new decorative gilding technique for a Brazilian porcelain manufacturer, but also continued to be engaged in innovative industrial and artisanal paint production after his return to Europe in 1970.

Taking the measure of distance

We are so used to the ever-increasing ease and speed of communication in our daily lives that it is difficult to imagine a time in history when people had to write and wait for letters; when they only called someone by phone to deliver either very bad or good news; and when they had to embark on weeks-long steamer journeys to see each other or art in person. From that vantage point, the solidity and frequency of exchanges of ideas among so-called Concrete artists at the mid-century – not just across national borders, but also across continents – generates astonishment and curiosity in equal measure. Firstly, this paper traces the main blocks of the network of contacts and inspirations developed by Concrete artists active in Europe

and Latin America with a focus on Paris/Zurich with the Abstraction-Création group and Max Bill (1908–1994) in relation to Buenos Aires with Tomás Maldonado (1922–2018) and the Asociación Arte Concreto-Invención (AACI). Secondly, it discusses the work of Kázmér Fejér (1923–1989), a Concrete artist and industrial chemist whose life unfolded between Pécs, his Hungarian birthplace, São Paulo and various cities in Central Europe (Figure 1). Until now, almost nothing was known about Fejér's manifold activities, and the reason for discussing them here is that apart from his work as a sculptor, Fejér was a highly creative transcontinental inventor, importer and exporter of paint technologies.

If communication today struggles with maintaining a healthy balance between speed and frequency

on the one hand, and meaningfulness on the other, the artists in question were greatly limited in terms of frequency. But the limitations imposed by analogue means urged them to identify the meaningful topics quickly. For that reason it may be informative to look at an artistic network not only from the point of view of impact – who showed what to whom and how that event played out in an artist's work thereafter – but also from the point of view of priority. For instance, why and how did the AACI artists in Buenos Aires obtain information on the work of the Belgian artist Georges Vantongerloo (1886–1965), who then as now is not all that well known, but whose work turned out to be instrumental in shaping their paths? Given the Latin American artists' limited means of travel and access to publications, exhibitions etc., who did they choose to write to, invite over, and visit on trips to Europe? And who travelled the other way?

During a recent research project at the Getty Conservation and Research Institutes that focused on the study and exhibition of a group of Concrete works by Argentine, Brazilian and Uruguayan artists, the transatlantic and, as we will see, seminal exchanges between, for example, Maldonado and Max Bill, the Swiss artist, architect and designer, could only be touched upon briefly.¹ In the early years of US scholarship on Latin American Concrete art, some researchers also suffered from an 'anxiety of influence', a worry that the Latin American artworks might be dismissed as pastiches of those of their more famous European predecessors. But interestingly, this anxiety was absent among scholars from Latin America and Europe. And, more importantly, it did not appear to be something with which the Concrete artists had been concerned: on the contrary in fact – they saw themselves not only as equal participants in an ongoing conversation, but also as authors of the next chapter of Concrete art.

Shared Concrete ideals

The most intangible link between the artists under scrutiny here consisted in their shared artistic ideas and ideals: Concretism. In 1943, partly under the influence of unspeakable horrors being reported from 'civilised' war-torn Europe, a group of young artists in Buenos Aires began to reconsider the



Figure 1 Kázmér Fejér, *Objeto No. 4*, undated sculpture from the 1950s, Plexiglas. The work was exhibited at Galeria de Arte das Folhas, São Paulo, in 1959 (photo: Hermelindo Fiaminghi Archival Fund/Instituto de Arte Contemporânea, São Paulo, courtesy of Peter Fejér).

role of artwork in society. Maldonado, Lidy Prati (1921–2008), Alfredo Hlito (1923–1993), Juan Melé (1923–2012) and Rhod Rothfuss (1920–1969), among others, resolved to create a new type of object, both from a formal and an ideological point of view: they embraced the possibilities of geometric abstraction as a visual language that to their minds enabled communication across class borders. Moreover, through their rejection of representation they established an affiliation with the most influential proponents of the pre-war avant-garde.²

Borrowing the term and concept 'Concrete' from the Dutch artist Theo van Doesburg (1883–1931), their work was precisely planned and carefully executed. The group's Marxist leanings were expressed in their desire to produce objects that were 'universal',

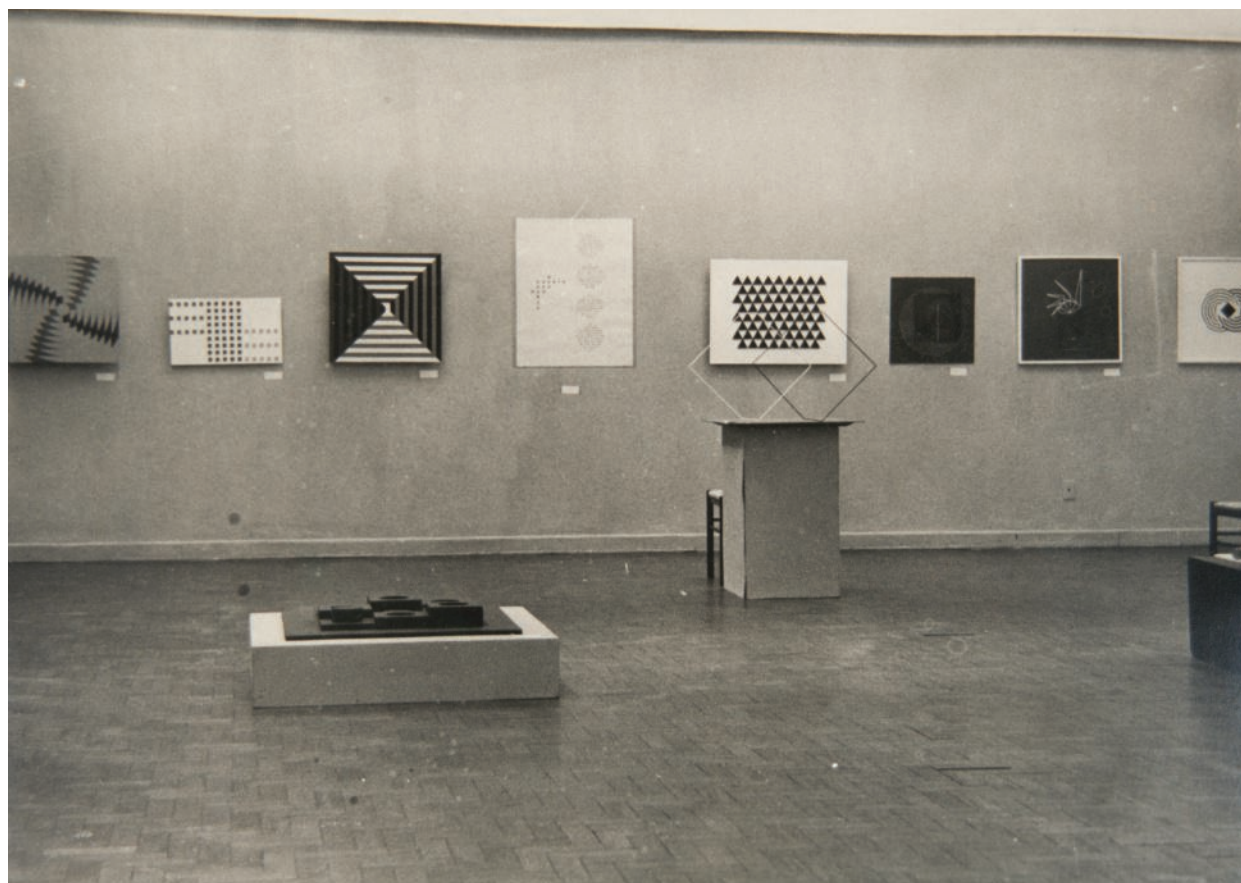


Figure 2 View of *Exposição nacional de arte concreta* at the Museu de Arte Moderna in São Paulo in 1956 with a painted sculpture by Kázmér Fejér on a low pedestal in the foreground, left-hand side (photo: Hermelindo Fiaminghi Archival Fund/ Instituto de Arte Contemporânea, São Paulo).

that could be part of everyday life, and that made no direct reference to external reality – only indirectly, as for example through experimentation with newly manufactured paints and supports intended for household and industrial use. Their artworks are characterised by a visual vocabulary of concise geometric forms, a restricted colour palette and smooth paint surfaces. In his essay ‘The frame: a problem in contemporary art’, published in the artists’ single issue magazine *Arturo* from 1944, Rothfuss questioned the role of a painting’s frame as separating the real space of the world and from the fictional space of painting (Rothfuss 2011: 420–21).³ He argued that since abstract art proposed to be a material part of reality, the conventional rectangular formats of paintings should be abandoned. His polemic led to the AACI determining the shape of their compositions according to the forms within it, a format now known as the *marco recortado* (irregularly cut-out frame).

In Brazil in the 1950s, at a time of rapid industrialisation, artists similarly reformulated academic

painting by emphasising the objecthood of the works they made. A group of São Paulo artists including Waldemar Cordeiro (1924–1973) and the above-mentioned Fejér banded together under the name Grupo Ruptura (‘Ruptura’ meaning rupture) and pursued a rationalist programme opposed to figuration. They exhibited once with their Concrete colleagues in Grupo Frente (‘Frente’ meaning front) from Rio de Janeiro in a landmark exhibition in 1956/57 (Figure 2).⁴ But by 1959, most of the Rio-based artists such as Lygia Clark (1920–1988) and Hélio Oiticica (1937–1980) had already regrouped to form the Neo-Concrete Movement.

Mobility across the Atlantic: patterns of migration

A closer look at the artists’ biographies reveals a variety of lifelines and fluid movements in both directions. There are those who were born in Europe and moved

to Latin America, either as children with their families for economic reasons such as the Great Depression of the 1920s; and there are those who immigrated to Latin America in the 1940s as adults, either again for economic reasons, or as refugees from fascism and other totalitarian regimes. The majority of São Paulo-based Grupo Ruptura and closely affiliated artists were first generation immigrants: the Italians Alfredo Volpi (1896–1988), who emigrated in 1898, and Waldemar Cordeiro in 1949; the Austrian Lothar Charoux (1912–1987) in 1928; the Poles Leopoldo Haar (1910–1954) in 1946 and Anatol Władysław (1913–2004) in 1930; Swiss-born Mira Schendel (1919–1988) in 1949 and the Hungarian Fejér in 1949. During the so-called Great European Immigration Wave of the late nineteenth and early twentieth century, the following artists moved to Argentina: the Czechoslovakian Guyla Kosice (1924–2016) in 1928, the Italian Gregorio Vardanega (1923–2007) in 1926 and the Spaniard Virgilio Villalba (1925–2009) in 1929. In both countries, the percentage of inhabitants of European origin today is about 45%, with a preponderance in Argentina from Italy and Spain, while in Brazil the majority is of Portuguese descent. Language was of course a major factor influencing migrants' destination preferences, but their fates were and are as much decided upon by changing national policy restrictions on immigration quotas.⁵

At one point, Fejér, Villalba and Vardanega chose so-called return migration, back to Europe, while a number of artists who were born in Latin America also moved permanently to Europe, such as Maldonado (first to Ulm in 1953 and then to Milan in 1967) and Carmelo Arden Quin (1913–2010) to Paris in 1956. Although they were originally from Possagno, Italy, Vardanega with his artist wife Martha Boto (1925–2004) in 1959 also chose Paris, joining a sizeable contingent of Latin American kinetic artists. Lastly, some artists were born in Latin America, lived in Paris for long periods of time, but at one point returned to Latin America, such as Clark, Melé and Joaquín Torres-García (1874–1949), an influential father figure for the younger artists upon his return to Montevideo in 1934. In 1946 an estimated 3800 Latin Americans were living in France, while by 1968 the number had risen to 9800 (Rolland and Touzalin 1994).

Among the few well-known abstract European artists whose interests drew them to visit Latin

America in this period were Josef (1888–1976) and Anni Albers (1899–1994). They were deeply impressed by Mexican pre-Hispanic art and architecture and visited Meso- and South America from their homes in the United States 13 times (Hinkson 2017). There, as well as in Cuba, Peru and Chile, Josef also taught foundational principles of the Bauhaus, but the couple never ventured to Argentina or Brazil, presumably owing to the lack of a comparably distinct pre-Hispanic heritage. The Alberses had been both students and teachers at the Bauhaus in its three locations in Germany from the 1920s until the National Socialists ordered its closure in 1933. Forced into emigration by Anni's Jewish roots, Josef went on to become first a highly influential teacher at Black Mountain College in North Carolina, then at Yale University, while Anni developed a successful career as a textile designer. The Brazilians Clark and Lygia Pape, in particular, verbalised and visualised their admiration for Josef's woodcuts of geometric Mesoamerican forms (Clark 1957: 56). The Bauhaus-trained photographer couple Grete Stern (1904–1999) and Horacio Coppola (1906–2012) had brought with them to Buenos Aires invaluable publications on the European avant-garde movement and hosted the second exhibition of the Concrete artists in their home in 1945.

School of thought: Max Bill, Tomás Maldonado and the Hochschule für Gestaltung

The most active and perhaps influential channel of transcontinental communication existed between Bill in Zurich and Maldonado in Buenos Aires (Figure 3). Their lively correspondence in French began after their first meeting in 1948 in Zurich, on Maldonado's first European trip. Bill also developed a close relationship with Brazil, in part through his contact with the recent Italian immigrant and co-founding director of the Museum of Modern Art in São Paulo (MAM-SP), Pietro Maria Bardi (1900–1999). Bill's works and ideas were received exuberantly by some of the younger artists such as Cordeiro, Geraldo de Barros (1923–1998) and Alexandre Wollner (1928–2018), who were first exposed to his work in 1951, when Bill received the grand prize for sculpture at



Figure 3 Max Bill, Josef Albers and Tomás Maldonado in Ulm, 1955 (photo: Margit Weinberg-Staber).

the first São Paulo Biennial. He also held a one-man exhibition at MAM-SP the same year. This emergence of a new generation of Concrete artists in Latin America coincided with a waning European interest in so-called ‘cold abstraction’ to the benefit of Art Informel (García 2009: 55–7).

The central location for Bill’s dissemination of ideas and ideals became the Hochschule für Gestaltung (HfG) in Ulm, which he co-founded in 1953 with Inge Scholl (1917–1998) and Otl Aicher (1922–1991).⁶ Many historians consider it, along with the Bauhaus, the most important design school of the twentieth century. In 1950, Inge Scholl had established the Geschwister-Scholl-Stiftung in memory of her brother and sister Hans and Sophie Scholl, who had been executed in 1943 by the National Socialists for their active resistance. The foundation received funds from American and German tax payers for the purpose of educating designers from around the world to create conditions in which the embrace of science and rationality would lead to a permanently peaceful and democratic society.⁷

The HfG was essentially a utopian post-war reimagining of the Bauhaus, where Bill himself had been a student from 1927 to 1928. With the blessing of the original Bauhaus’s founder Walter Gropius (1883–1969), the HfG’s curriculum reached back to basic Bauhaus principles while adapting them

to the needs of an industrialised society. As the Hochschule’s first rector, Bill invited his former teacher Albers to teach students in the one-year foundation course, after which they chose between subjects such as information, visual design (later visual communication), product design, architecture or town planning. The product designer Aicher, who became well known for projects such as Lufthansa’s corporate design, introduced the ‘Ulm Model’, which meant that development was added as a third component to the school’s other basic tasks: research and teaching. He envisaged development to be a control unit in which theories could be tested directly for their suitability in practical applications, such as prototypes for serial production (Spitz 2014: 69).

From the very start in the early 1950s, the Hochschule created an important axis to Latin America because of Maldonado, who at Bill’s invitation also began to teach there in 1953/54. Over time, 10 Brazilian artists and designers received fellowships, initiated by Bill and based on recommendations by Bardi, to study there for a year. The first Brazilian students were Mary Vieira (1927–2001) and Almir Mavignier (b. 1925) in 1953–55; the best-known Argentine student was Francisco Bullrich (1929–2011) (Spitz 2013: 28–36). Other early students included de Barros and Wollner who, after their studies in Ulm in 1954, imported to Brazil

Bill's ideal of *Die Gute Form* (the good form), which is based on the minimalist paring down of the shape of an object to enable its maximal functionality while remaining beautiful.⁸ Wollner had assisted with the installation of Bill's retrospective at MAM-SP in 1951 and also worked with Aicher in his private design company in Ulm (Kemp 2013: 22). Back in São Paulo in 1958, de Barros and Wollner set up 'form-inform,' an advertising agency where they continued the Bauhaus and Hochschule's tradition of using lower case sans serif fonts. In fact, Maldonado, on the aforementioned European trip in 1948, brought back via steamer a heavy sack full of leaded sans serif letters and thus effectively introduced the typeface Spartan to Argentina, which would go on to be used in Concretist publications (Escot 2007: 59; Delvalle 2018: 7).⁹ Spartan had come onto the market in 1939 as a competitor to the very popular Futura font, which had been released in 1927. Although the two fonts look very similar, there are a few distinguishing characteristics: Futura is easily recognisable for the perfect circle of the letter 'O', whereas Spartan comprises a double-storey alternate 'a' and its number '1' has a flat, rather than an angled terminal (Figure 4). Futura's designer Paul Renner had not been associated with the Bauhaus, but shared many of its concepts such as an emphasis on rationality and functionality, an interest in mass production, and optimism about the future. In any case, Maldonado's physical hand-importing of a set of letters to Buenos Aires was one of the most tangible transcontinental acts that can be reconstructed here.

**Family tree:
Kandinsky—van Doesburg—
Mondrian—Vantongerloo—
Bill—AACI**

One of the questions that emerged from the Getty research project was why the AACI group at one point chose Vantongerloo as its main artistic reference. In the early to mid-1940s, they had focused primarily on the much better-known Piet Mondrian (1872–1944), evidenced for instance by the inclusion of a reproduction of a painting of his in *Arturo*, the magazine that also moonlighted as the Concretists' manifesto. Melé even made a number of works in the

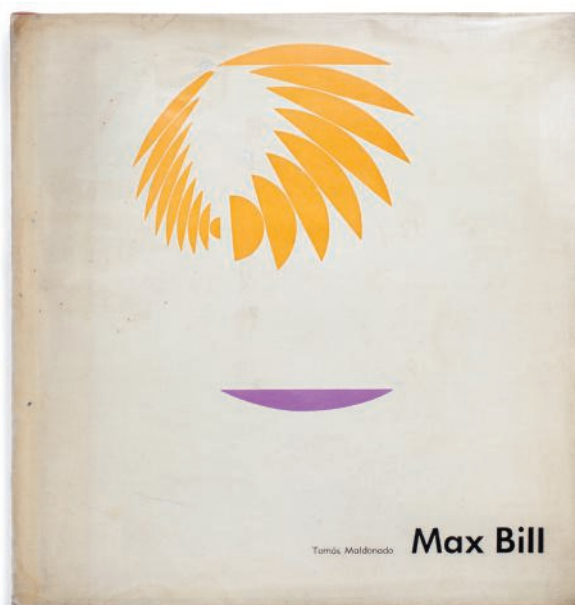


Figure 4 Use of the Spartan font for the cover design by Tomás Maldonado for his monograph on Max Bill, published by Ediciones Nueva Visión, Buenos Aires, in 1955 (photo: Constanza Vicco, courtesy of the Institute for Studies on Latin American Art (ISLAA), New York).

mid-1940s called *Homenajes a Mondrian* (Homages to Mondrian) (Melé 1999: 92). But they only knew Mondrian's work through black-and-white reproductions, which led for example to grave misunderstandings about the texture of his paintings, and since the artists do not seem to have had access to his writings, they had mistaken conceptions of Mondrian's philosophical and political affiliations such as his interest in theosophy. Then, in 1944, the year these young artists published *Arturo*, both Kandinsky and Mondrian died. Van Doesburg had already died prematurely in 1931, so in 1948, when Maldonado first came to Europe keen on meeting like-minded artists, the main living proponent of Concrete art in Paris was Vantongerloo.¹⁰

Perhaps another reason why Vantongerloo became so central to the AACI's approach to composition and painting technique is that a tight bond already existed between the Belgian artist and Bill. To better understand their relationship, one has to go back to the year 1930, when abstract artists in Paris organised themselves into two, short-lived rival groups: *Cercle et Carré* and *Art Concret*. The former, founded by Torres-García and the Belgian critic Michel Seuphor (1901–1999), boasted many illustrious members such as Mondrian and Jean Arp (1886–1966), and was



Figure 5 Theo van Doesburg, Jean Arp and Sophie Taeuber-Arp, *Café l'Aubette*, 1926–28, Strasbourg, after the restoration campaign in 2006 (photo: Pia Gottschaller).

politically diverse.¹¹ Art Concret, on the other hand, was propelled primarily by van Doesburg and Jean Hélion (1904–1987) and counted only five members, all of whom were staunch communists (Figure 5) (Thomas 2009: 229–31). Art Concret also published a manifesto. Neither group survived the presence of so many strong-willed men for long, although the main motivation for founding these groups – to present a coherent anti-Surrealist proposal – was still valid (von Beyme 2005: 376–82). Their dissolution led to the formation of the Association Abstraction-Création in 1931, which brought together in principle the very same group of important abstract painters, in France and abroad.

After van Doesburg died, Vantongerloo was invited to take his place as vice-president of Abstraction-Création. Since Mondrian and van Doesburg had never managed to overcome their artistic differences after the dissolution of De Stijl, Mondrian agreed to become a member only after van Doesburg's death. Vantongerloo and Mondrian had also had disagreements during their time in De Stijl because Vantongerloo, following Baruch Spinoza's

seventeenth-century teachings in *Ethica* on the application of Euclidean geometry to philosophy, aimed for a unity of mind and matter, whereas Mondrian privileged mind over matter (Thomas Jankowski 1986: 27). In 1933, Arp not only invited the 25-year old Bill to join Abstraction-Création, but also brought him along to a studio visit with Mondrian, with whom Bill subsequently started a friendship (Thomas 2009: 233). In December that same year, Bill met Vantongerloo at a vernissage of Abstraction-Création (Thomas 2006), and after the dissolution of Abstraction-Création in 1937, Bill decided to take on the mantle of Concrete art. In 1944, he organised an exhibition called *Konkrete Kunst* at the Kunsthalle Basel, wrote essays and founded the magazine *abstrakt/konkret*. In 1965, following Vantongerloo's death, Bill acquired his friend's estate.

Vantongerloo's cosmic white planes

Vantongerloo was passionate about science and mathematics and in fact many of his paintings' titles consist of algebraic equations (Figure 6). The artist was undoubtedly able to communicate this passion for maths to his visitors and friends, but perhaps he was less able to convincingly communicate his method of applying the principles to his art making. Vantongerloo stated, for example, rather opaquely that:

to reduce art to mathematics would mean to express oneself in a dismal manner. Instead we should say: to reach artistic expression through geometric forms. We speak of a mathematician as we speak of a painter, sculptor or musician. But is what the mathematician seeks, finds and records in an equation really only mathematics? Has mathematics discovered the laws of nature or has it only lent itself to record and formulate ideas? In art it is the same. Geometry serves to formulate the relationships of a new crystal, of a new image, of a composition (Vantongerloo cited in Weinberg-Staber 1986: 24–5).

Surely not by coincidence, several Latin American artists – such as Raúl Lozza (1911–2008), the founder of *Perceptismo* with his very personal formulation of a new, mathematics-based colour theory as well

as Cordeiro and Judith Lauand (b. 1922) – referred to maths as underlying principles in their own geometric compositions, and often produced equally opaque statements about the process.

These connections based on intellectual and personal affinities go some way towards explaining how Vantongerloo came to play such a prominent role, especially in the Río de la Plata artists' mental universe. But perhaps the most tangible link that can be established with Vantongerloo is through the adoption of a particular painting technique of his by Vardanega (Gottschaller 2017: 54). We know from a book of memoirs that Melé published in 1999, *La vanguardia del 40. Memorias de un artista concreto* (The 1940s Avant Garde. Memoirs of a Concrete Artist) that in 1948 Melé and Vardanega went to Paris on a French government scholarship.¹² They left Buenos Aires on 25 September 1948 (Melé 1999: 139). On board the steamer *Ravello*, at the start of their 21-day-long trip to Naples, Melé and Vardanega ran into Arden Quín, who had just started a fierce and problematic bid for the leadership of Grupo Madí with his rival Kosice, who remained in Buenos Aires. While Arden Quín had letters of introduction from Torres-García to critics such as Seuphor, who in turn would introduce him (as well as Melé and Vardanega) to prominent artists including Constantin Brancusi and Sophie Taeuber-Arp, Maldonado had given Melé contact information for Vantongerloo (Melé 1999: 146).

Melé and Vardanega lost no time and paid the first visit to Vantongerloo in his studio at 7 Impasse Rouet in the 14th arrondissement five days after their arrival, on 1 November 1948. They were not only very taken with the man's intellectual independence, but also with the 'impeccable purity' of his Concrete objects and spatial sculptures (Figure 7) (Melé 1999: 154). Melé noted in his diary that day that:

his paintings have been realised with a fantastic technique. The white surfaces are so pure that in reality they didn't appear painted. The colours are so meticulously diluted that one doesn't see brushstrokes. Some have been painted with a roller, which gives them a very even and wall-like appearance (Melé 1999: 152).

A later entry adds that 'the grounds of his paintings are an impeccable white, achieved through multiple

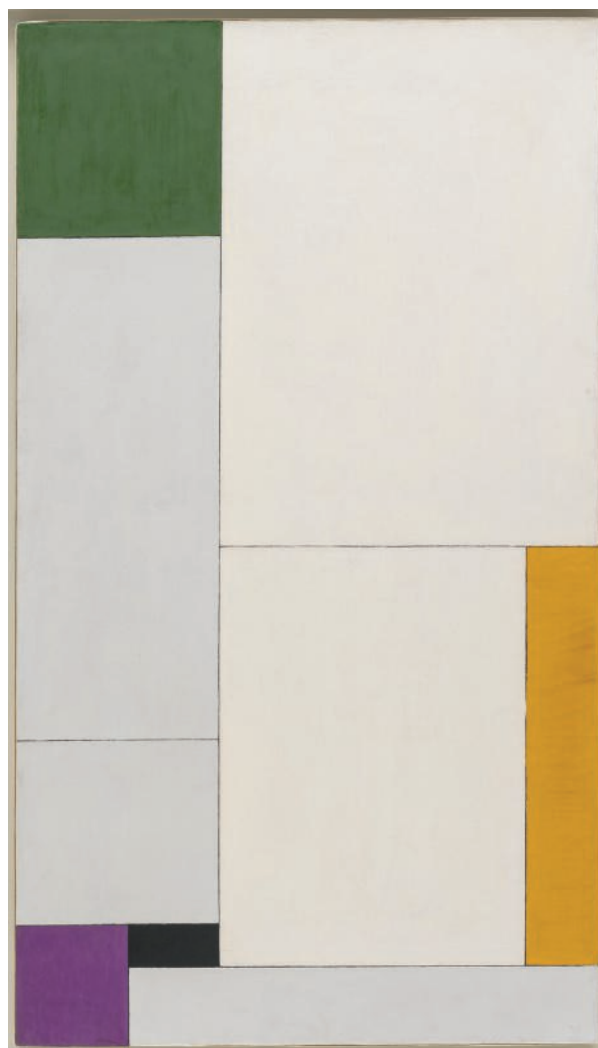


Figure 6 Georges Vantongerloo, *Composition émanante de l'équation $y = -ax^2 + bx + 18$ avec accord de vert... orange...violet [noir]* 1930, oil on canvas, 119.4 × 68.2 cm, Solomon R. Guggenheim Museum, New York (photo: Solomon R. Guggenheim Museum, courtesy of DACS, Georges Vantongerloo Estate).

layers of paint patiently polished with sandpaper and water, which gives them a porcelain surface' (Melé 1999: 157–8). The white, 'neutral' background suggesting infinite space in which geometric forms are situated became a recurring compositional element of the avant-garde, the lengthy preparation of which Vantongerloo described in a letter dated 12 February 1951 to the artist Fritz Glarner in New York: he used tube oil paint without any addition of turpentine or oil, which he applied in four to five layers 'as one does with a car' and 'to open the pores of the material'. He also described using 'permalba white' because he liked the mixture of reddish zinc white and bluish 'blanc d'argent' (titanium white). The painstaking

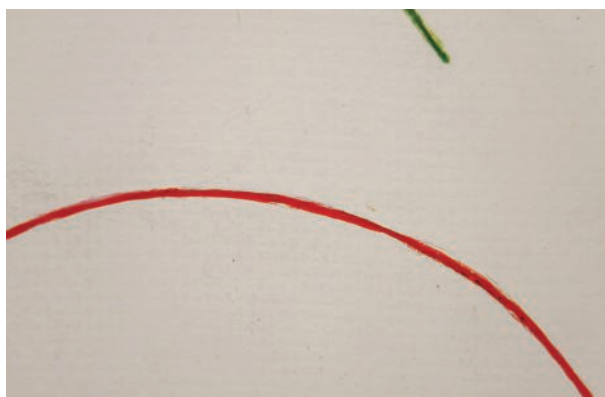


Figure 7 Detail of Georges Vantongerloo, *Attraction-Repulsion*, 1946, oil on hardboard, 96 × 103 cm, Museo de Arte Moderna, Buenos Aires, Gift of Josefina Pirovano de Mihura in memory of her brother Ignacio Pirovano 26.8.1980 (photo: Pia Gottschaller, courtesy of DACS, Georges Vantongerloo Estate).

polishing with sandpaper and water is what ‘removes the material aspect of colour,’ explained Vantongerloo (Bode and Thomas 2018: 11).

The question as to whether diagonals and secondary colours such as green, purple and orange were admissible elements in avant-garde paintings had caused a painful rift between the purist Mondrian and the more expansive van Doesburg. Additionally, Mondrian and Vantongerloo had fought over whether compositions accommodated just three colours, according to Mondrian, or actually seven, as Vantongerloo insisted (Thomas 2006). Some of Vantongerloo’s strongest works from the late 1930s display finely painted curves, amorphous shapes and secondary colours, such as *Forms and Colours Called Irrational* from 1942 (Buenos Aires, Museo de Arte Moderno). The importance of the meticulously polished background would become a central aspect of Concrete and Neo-concrete artmaking, as I have proposed elsewhere, and the degree to which brushwork and impasto were allowed to be absent or present subtly indicated where one stood in the debate as to the role or importance of the individual (Gottschaller 2017). In his own memoirs, AACI artist Hlito wrote that he was deeply disappointed when he witnessed for the first time in person in Europe Mondrian’s pasty textures and black lines ‘that were like furrows’ (Hlito 1995: 205). Hlito’s own paint surfaces in the Concrete period were exceedingly smooth, a feat he achieved despite them having been executed on canvas with traditional oil paint and brushes (Gottschaller 2017: 34–6).

Comparison of the basic construction and technique of Vantongerloo’s painting with *Untitled* by

Vardanega from 1948 highlights shared preferences for composite-type wooden panels, nailed-on strip-frames painted white, and a highly polished white background with geometric shapes added above (Figure 8). These works are representative of both artists’ work of the period. Vantongerloo from 1934 worked on plywood panels and from c.1938 onwards on hardboard panels (Janssen 2009: 221), the rigidity of which made the manual, painstaking polishing of paint surfaces easier. Melé also worked on hardboard panels and, as he explained in his book, briefly tried integrating curves into his repertoire, but ultimately abandoned this trajectory because in his view Vantongerloo’s work did not fully respect Concrete art’s rules (Melé 1999: 153). The ‘classic’ visual repertoire of Concrete art consisted of shapes based on straight edges like rectangles and squares.

In 1951, another member of AACI, Manuel Espinosa (1912–2006), also travelled to Europe on what could by then be called the Concrete Grand Tour, following the well-trodden path of his predecessors to Italy that led to Bruno Munari (1907–1998) in Milan, Piero Dorazio (1927–2005) in Rome, Bill and Richard Paul Lohse (1902–1988) in Zurich, Friedrich Vordemberge-Gildewart (1899–1962) in Amsterdam, a revered abstract painter and HfG teacher, and of course to Vantongerloo in Paris (Lemoine 2018: 6–8). Presumably as a direct result of the encounter with the latter, Espinosa’s work took a new direction, and throughout the 1950s he explored themes in series, such as curved shapes placed on vertically rectangular, monochrome backgrounds.¹³

The Argentine groups were as short-lived as their Parisian predecessors. Until Bill left the HfG in 1957, after long-standing, bitter arguments in particular with Aicher and Maldonado about whether students should aspire to become genius-like artists or scientific designers, Maldonado remained both Bill’s and Vantongerloo’s greatest promoter. He published a monograph on Bill in 1955 (see Figure 4) and advised Ignacio Pirovano (1909–1980), a wealthy Argentine lawyer who, in 1950, began to amass an important collection of Concrete art. The collection includes a number of works by Vantongerloo, some of which had been exhibited at the Institute of Modern Art in 1949 (Vantongerloo 1982: 18).¹⁴ The Pirovano collection now forms the core of the Museum of Modern Art in Buenos Aires (García 2001).

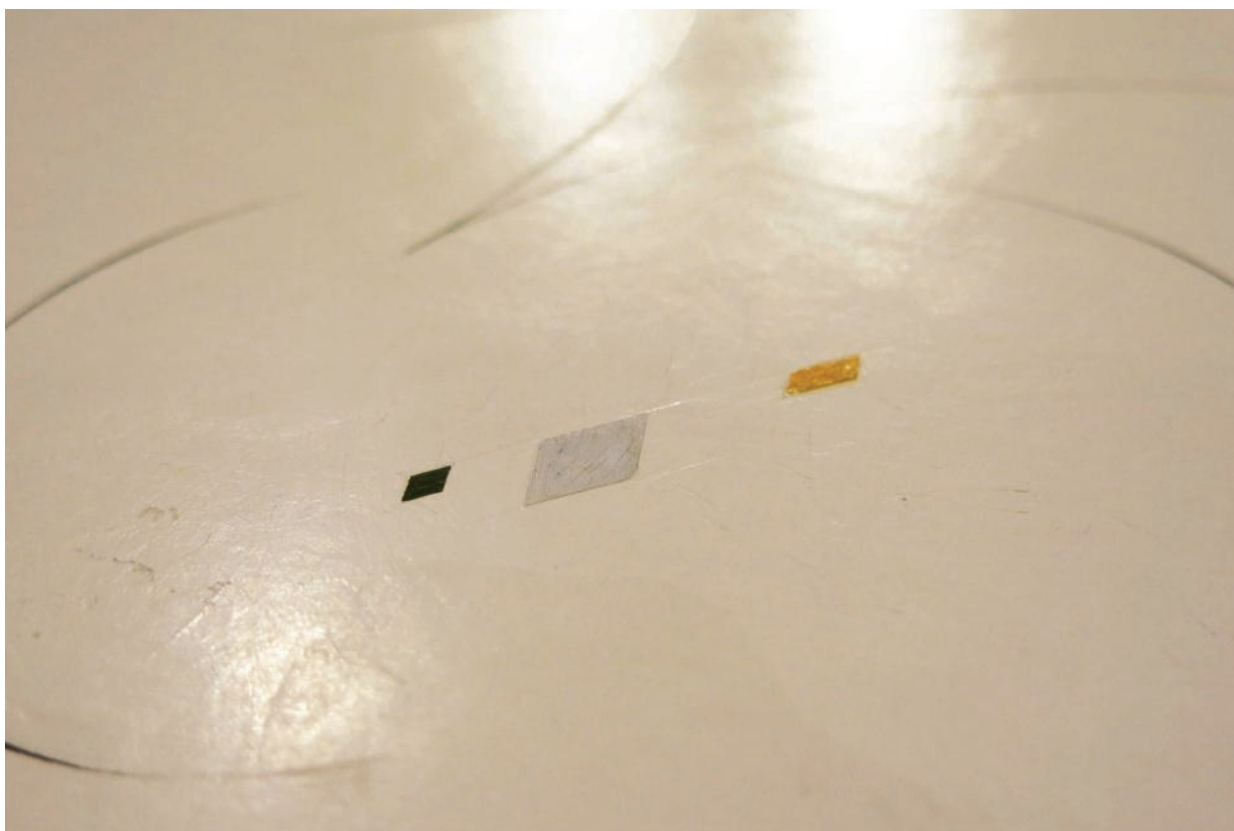


Figure 8 Raking light detail of Gregorio Vardanega, *Sin título*, 1950, oil on hardboard, Museo Sívori, Buenos Aires (photo: Pia Gottschaller).

The transcontinental inventor, importer and exporter of paint technologies: Kázmér Fejér

Fejér was born in Pécs, Hungary, in 1923, from where he moved to Budapest to train as an industrial chemist and artist.¹⁵ According to his own account, he was only 17 when he entered the Academy of Fine Arts, which expelled him for disruptive behaviour and for propagating ‘decadent art, vaguely Expressionist’ (Gullar and Bastos 1957a). After the Communist takeover of Hungary in 1948, he and his then girlfriend immigrated to Uruguay via Vienna, Trieste, Rome and Marseille. Montevideo had been their original destination, but disappointment with the provinciality of the capital made them seek permission to relocate to Brazil, which they did in October 1949. At São Paulo’s Clube dos Artistas he befriended Cordeiro, with whom Fejér could speak in Italian. Although Fejér became fluent in several European languages, in the beginning he struggled with Portuguese, and it was perhaps because of this limitation that in Brazil he was known to be a taciturn man.¹⁶



Figure 9 Waldemar Cordeiro, Luiz Sacilotto, Kázmér Fejér, Judith Lauand, Mauricio Nogueira Lima and Hermelindo Fiaminghi at Galeria de Arte das Folhas in 1959.

Cordeiro and Fejér became lifelong friends and co-founded Grupo Ruptura with others in 1952 (Figure 9). Art-historical accounts of the period always mention Fejér, but generally do not provide any other information. Perhaps because of his many relocations from Hungary to Uruguay and Brazil, and back in Europe to Germany, France and Portugal, very few original artworks survive apart from later

reconstructions.¹⁷ Documentary evidence is very scarce and anecdotal information is largely impossible to verify. But what emerges from various personal recollections is a mercurial and restless character, an unhappily married man who was deeply dedicated to his always elegantly dressed mother, who had come to live with him in Brazil and cooked traditional Hungarian food.¹⁸ He clearly had an unusually creative mind: while still in Hungary, he participated in a literary competition with a 60-page novel, the plot of which was the fall of a drop of water and its infiltration into soil. The journalist reporting the story recorded Fejér as explaining that ‘the drop of water was the only material needed to demarcate the shape of the problem that the author proposed to resolve with only negative elements. Fejér’s [sic] axiom: “Volume creates volume; negative creates negative”’ (Gullar and Bastos 1957a).¹⁹

During the Getty project, conservation scientist Joy Mazurek identified a very unusual paint, a polyurethane-modified alkyd, as the binder in a painting by fellow Grupo Ruptura member de Barros, *Função diagonal* (1952). The admixture of the synthetic plastic urethane, especially at this time in the early 1950s, indicated that it was not proprietary but a custom-made paint. In interviews with the daughters of de Barros and Cordeiro, Fabiana de Barros and Analívia Cordeiro, both successful artists in their own right, it transpired that the paint had probably been concocted by Fejér. They said that their fathers were always in search of faster-drying and self-levelling paints and were therefore especially open to trying out new materials. Fejér had been their willing accomplice by experimenting with novel paint formulations in their shared kitchen and studio in the 1950s, as already described in detail elsewhere (Gottschaller 2017: 42–3). Interestingly, although he often considered himself both a painter and sculptor, at least in the Concrete period he seems to have preferred to work with Plexiglas, rather than paint (see Figure 1). Analívia Cordeiro also remembers a transparent chair at his house, constructed by Fejér from Plexiglas, which she was apprehensive about sitting on.²⁰ The manufacture of poly (methyl methacrylate), variously called Plexiglas, Perspex, Lucite or acrylic, began in 1934, and the artist admired the early Constructivist sculptures by Naum Gabo and his brother Antione Pevsner made with this material.²¹ Féjér loved its transparency because, as he

was reported to have said in 1957, he found ‘the research of tonalities lazy’ (Gullar and Bastos 1957a). Inspired by a deepening interest in cosmic phenomena, Vantongerloo also started to make sculptures from Plexiglas in 1948 and in fact received technical advice on how to tint and polish Lucite, the North American name used for the same material, by Glarner in New York (Bode and Thomas 2018: 5). In 1956, Glarner also sent Vantongerloo from New York a bottle of ‘liquid plexiglas’ (Bode and Thomas 2018: 27). He presumably used it for casting transparent sheets that he then twisted into complex, amorphous sculptures that are often adorned with small painted shapes.

Se brilha é ouro – if it glitters it’s gold

Fejér married three times and had one child, Peter (b. 1965) with his second wife. Peter Fejér recently mentioned ‘gold’ in another paint-related undertaking of his father.²² Gold played an important role in Brazilian history as the discovery of the precious metal in the late seventeenth century by colonial Portuguese explorers, who had actually been in search of indigenous peoples to enslave, led to the longest-lasting gold rush in history. Centuries later, in June 1956, Brazil’s foremost newspaper *Jornal do Brasil* started to publish a Sunday arts supplement. Owing to contributors such as the influential poet, critic and later co-founder of the Neo-Concretist movement Ferreira Gullar, who was responsible for the visual arts content along with the poet Oliveira Bastos, the *suplemento dominical* was, from the outset, a firm supporter of the activities of Concrete artists. In February 1957, Gullar published two reviews of the important *National Exhibition of Concrete Art*, which for the one and only time had united Grupo Frente and Grupo Ruptura in an exhibition that opened first in São Paulo in December 1956 and then travelled to Rio (see Figure 2). The supplement from 24 February comprised the second exhibition review as well as a shorter text with the title *Ouro falso* (False gold). An unidentified author quotes Casimiro Fejer [sic] as saying that:

he isn’t and never was an alchemist – the ‘philosopher’s stone’ never interested him. ‘The gold I am

producing – says the Concrete sculptor from São Paulo – is just gold paint for ceramics. This paint was invented in 1720, and all I did was start to fabricate it in Brazil’ (Gullar and Basto 1957b).

The article continues by informing readers that Fejér is an industrial chemist and that he wanted to clarify that the version of the process in which he supposedly transformed ‘leprous metals’ into gold was possibly created by friends who had seen glass containers of acids and salts in his house. Another important reference to Fejér’s involvement with gold stems from a 1985 interview with fellow Grupo Ruptura painter Hermelindo Fiaminghi, in which Fiaminghi spoke about his industrial collaboration with the crockery company Porcelana Real, for which he created patterns and Fejér made gold paint for the company’s porcelain decorations (Fiaminghi cited in Eça Ferreira and Mendes 1985: 3) (Figure 10).

It is highly likely that Fejér manufactured what is commonly called in the porcelain industry ‘Liquid Gold’ rather than false gold bronze paint. ‘Liquid Bright Gold’ is a preparation which, when applied to a smooth glossy surface such as ceramic or glass and heated to burn off organic constituents, produces a mirror-like film of at least 22 carat gold. Technical literature describes it as a solution that contains organic solvents ‘in which a gold atom is attached to a sulphur or oxygen atom which in turn is linked to a carbon atom’. It contains ‘small additions of compounds of rhodium and base metals such as bismuth, chromium, vanadium, silicon and tin’ (Papazian 1982: 81). Yet Fejér’s claim that the paint was invented in 1720 remains somewhat of a mystery. ‘Liquid Gold’ was invented in 1827 by Heinrich Gottlob Kühn (1788–1870) when he was a technical manager at the Royal Porcelain Factory in Meissen, Germany. The process was kept secret until 1851, when it was patented, and it has continued to be modified since (Corti and Holliday 2010: 325–6). The Meissen factory started production in 1710 as the first of dozens of other major porcelain factories in Europe such as Sèvres, Nymphenburg and Wedgwood. Perhaps that was the date Fejér remembered. Porcelana Real, on the other hand, was established in 1943 by Italian immigrants in Mauá, a suburb of São Paulo that became a centre of porcelain manufacture because of its high-quality



Figure 10 Directorate of Porcelana Real and functionaries present the painting section to visitors on 12 November 1955 (photo: Archive Museu Barão de Mauá, gift of Livia Maria).

clay. Only five years after Porcelana Real opened its doors, it was bought by its rival Porcelana Schmidt.²³ But why was it worth mentioning this activity in a newspaper section on Concrete art when the two groups were at the zenith of their rivalries? Perhaps the answer is because this type of work was a prime example of the intertwining of art, industry and life towards which Grupo Ruptura strove, of taking the elitism out of art and contributing to the industrialisation and modernisation of Brazil.

In the middle of the Brazilian dictatorship, in 1970, Fejér decided to move back to Europe, again for economic reasons. With money borrowed for a one-way ticket from Cordeiro, Fejér first ended up in Vienna, alone, and later that year in Hainburg, Germany, where his family joined him. There, at a plastic-producing company, Fejér developed the so-called Universal Masterbatch, a method of dispersing pigments in thermosetting plastics.²⁴ In 1973, the family moved to Garches, a Paris suburb, where Fejér attempted to reconnect with his artistic life by renting a studio in Montparnasse. He allowed his old Grupo Ruptura friends Fiaminghi and Luiz Sacilotto (1924–2003) to stay in the studio when they came to visit in 1978. In 1979, his second (by now divorced) wife and son returned to Brazil, and in the early 1980s Féjer bought a studio in the Quartier Latin. During that time, he also set up an artists’ supply store near Parc de Luxembourg, which brought to a close the immense variety of ways in which Fejér had engaged with paint throughout his

life: he used paint, as a painter; he concocted paint, as an inventor for Grupo Ruptura; he developed paint, as a chemist for porcelain, toy and cosmetics applications (Gottschaller 2017: 43);²⁵ and he sold paint, as the owner of an art store. But by 1985, Fejér was, according to his son, disappointed and exhausted by the French way of life – so much so that he uprooted himself again and changed trades dramatically: he moved to Sesimbra, a fishing town near Lisbon, where with his son he opened a sea-food export business. Although it was apparently successful, they closed it when Peter returned to Brazil. Kázmér Fejér died in Sesimbra the following year.

Who defines the periphery?

The simple facts of limitations imposed by physical distance and the commitment required in terms of money, effort and time go some way towards explaining why the study of Latin American art was, until the 1990s, mostly carried out by Latin Americans. Other influential factors included the severely restricted circulation of artworks, people and information due to military dictatorships. Initially, studies focused on national movements, followed by the continent as a whole, but tracing the full transcontinental network is at this point an international scholarly undertaking. The relative lack of Latin American scholarship in Europe and the United States, also due to language barriers, resulted in the lack of representation of Latin American artists in the Western canon. Great strides have been made since to change this deplorable fact, bringing with it a weakening of the immense power that the Western canon has exerted for so long. But something else still impedes these and many other non-Western artists' full integration: ultimately, it is the final adjustment of our perception, a major post-colonial task. The question of which countries, artists and practices are at the periphery of perception surely depends entirely on the standpoint of the perceiver: whether you are in Buenos Aires and look towards Paris, or whether you are in Paris and look towards Buenos Aires. Looking at the globe from the cosmos, there is no periphery.

Notes

1. The research project was a collaboration between the Getty Conservation Institute and the Getty Research Institute. The exhibition *Making Art Concrete: Works from Argentina and Brazil in the Colección Patricia Phelps de Cisneros* was held at the J. Paul Getty Museum, Los Angeles, 16 September 2017–11 February 2018: for the exhibition catalogue see Gottschaller *et al.* 2017.
2. For comprehensive accounts of the period, see for example Pérez-Barreiro 1994, García 2011 and Alberro 2015.
3. *Arturo* was conceived and published before the artists' eventual split into two groups in 1945, AACI and Grupo Madí; Rothfuss and Carmelo Arden Quín belonged to the latter.
4. The *Exposição nacional de arte concreta* took place at the Museu de Arte Moderna in São Paulo (MAM-SP) and subsequently at the Ministério da Educação e Cultura in Rio de Janeiro.
5. Brazilian authorities kept most ports to passenger traffic closed from 1942 to 1945, and even though general immigration policy did not end with the dictatorship of President Vargas in 1945, the subsequent government's position on global refugee issues was modified. In 1954, Brazil received 40,000 European refugees. See S. Wejsa and J. Lesser, 'Migration in Brazil: the making of a multicultural society', 29 March 2018. Available at: www.migrationpolicy.org (accessed 2 October 2018). On the same website, an article by M. Jachimowicz, 'Argentina: a new era of migration and migration policy', explains that for a short period in the late 1880s, the Argentine government had subsidised immigrant boat passages. An estimated seven million immigrants arrived between 1870 and 1930, but about half returned home in the following decades because of slow industrial development and a European 'return mentality'. European immigration to Argentina declined during the Great Depression and rose again slightly in the 1950s.
6. Teaching took place in an already extant adult education school until the actual building of the Hochschule, designed by Bill, was ready in 1955.
7. The HfG was in operation until 1968, when it closed because of financial difficulties, in-fighting and a lack of political support (Spitz 2014: 20–23).
8. HfG teachings were also exported to Latin America through the design theorist Gui Bonsiepe, who still lives in Argentina and Brazil. Born in Germany in 1934, he studied Information at the HfG from 1955 and went on to teach there until its closure in 1968. He has subsequently taught in Chile, Argentina, Brazil, the United States and Germany, and is best known for his seminal work on interfaces. The archive

- of the Josef and Anni Albers Foundation in Bethany, CT, contains correspondence between Albers and Bonsiepe on the latter's translation of Albers's seminal book *Interaction of Color* into German.
9. Some confusion surrounds this topic for two reasons: Escot suggests that Maldonado liked Spartan because he thought it had been created by László Moholy-Nagy and Herbert Bayer, although it was actually John L. Renshaw (Escot 2007: 59). According to Delvalle, the graphic designer Carlos Méndez Mosquera told her that 'although the typeface was referred to as "Spartan" in interviews, it was in fact Futura. Until then, the typeface Futura was unknown in Argentina, and sans serif fonts were scarce' (Delvalle 2018: 17–18, n. 35). Actual analysis of published documents suggests that it was in fact Spartan.
 10. Another documented meeting took place in 1950 between Vantongerloo and Ellsworth Kelly: see Brunet 1992.
 11. After his return to Montevideo, Torres-García revived the publication *Cercle et Carré* as *Círculo y Cuadrado* in 1936.
 12. Melé returned to Buenos Aires in 1950.
 13. Another young abstract Argentine artist, who after visiting Vantongerloo in 1950 changed his artistic course but who was not a member of AACI, was Victor Magariños D. See his foreword in Vantongerloo 1982.
 14. The exhibition was organised by the curators Marcelo de Ridder and León Degand.
 15. I would like to thank Peter Fejér (personal communication 25 July 2018) for sharing all the biographical information in this paper.
 16. Analívia Cordeiro (personal communication 3 September 2018) is thanked for sharing her recollections.
 17. According to Peter Fejér, the vast majority of Kázmér Fejér's extant sculptures were reconstructed in Plexiglas by his father between 1973 and 1983 in Paris. It remains unclear whether the materials of the originals were respected and if he worked with glass in addition to Plexiglas (personal communication 15 January 2019). See also www.fejer.com.br.
 18. Analívia Cordeiro, personal communication, 2018.
 19. *Ouro falso* is the title of the short article in the newspaper supplement. I would like to thank Zanna Gilbert for her help in translating the text.
 20. Analívia Cordeiro, interview with the author, 11 April 2016.
 21. Gabo and Pevsner were also members of Abstraction-Création.
 22. Peter Fejér, personal communication, 25 July 2018.
 23. For a brief history of Porcelana Real, see www.porcelana-schmidt.com.br. For videos with historic photographs of the many porcelain factories of Mauá, see the

Museu Barão de Mauá's YouTube channel.

24. In 1977 Fejér filed a patent for this method, DE2753984 A1, which according to some accounts was quite lucrative. The patent was published in 1979.
25. See Gottschaller 2017.

References

- Alberro, A. 2015. 'To find, to create, to reveal: Torres-García and the models of invention in mid-1940s Río de la Plata', in *Joaquín Torres-García: The Arcadian Modern*, L. Pérez-Oramas (ed.). New York: The Museum of Modern Art, 106–21.
- Bode, B. and Thomas A. (eds) 2018. *Briefwechsel von Fritz Glarner und dessen Ehefrau Lucie Glarner mit Georges Vantongerloo 1948–1965*, B. Bode (tr.), Archive Georges Vantongerloo, Haus Bill. Zumikon: Haus Bill. Available at: <https://maxbill.ch> (accessed 9 September 2018).
- Brunet, N. 1992. 'Chronology, 1943–1954', in *Ellsworth Kelly: The Years in France, 1948–1954*, Y.-A. Bois, J. Cowart and J. Pacquement (eds). Washington DC: National Gallery of Art, 186.
- Clark, L. 1957. 'The influence of Albers', in *Lygia Clark: The Abandonment of Art*, C. Butler and L. Perez-Oramas (eds), 2014 exh. cat. New York: The Museum of Modern Art.
- Corti, C. and Holliday, R. (eds) 2010. *Gold: Science and Applications*. Boca Raton: CRC Press.
- Delvalle, V. 2018. 'Tomás Maldonado, 1944–1957: from *Arte Concreto* to *nueva vision*', *Journal of Design History* 32(1): 17–34. Available at <https://doi.org/10.1093/jdh/epy039> (accessed 14 October 2018).
- Eça Ferreira, M. and Mendes, E. 1985. *Interview with Hermelindo Fiaminghi*, transcript, 1–15. São Paulo: Archive of the Pinacoteca do Estado.
- Escot, L. 2007. *Tomás Maldonado: Itinerario de un intelectual técnico*. Buenos Aires: Instituto Salesiano de Artes Gráficas, Imprenta Don Bosco.
- García, M.A. 2001. *El diseño de una colección: Tomás Maldonado y Ignacio Pirovano en la representación del arte concreto*, 1–10. Available at: <https://www.mundoclasico.com/articulo/6887/Tom%C3%A1s-Maldonado-e-Ignacio-Pirovano-en-la-representaci%C3%B3n-del-arte-concreto> (accessed 23 September 2019).
- García, M.A. 2009. 'Max Bill on the map of Argentine and Brazilian Concrete Art', in *Adolfo Leirner Collection of Brazilian Constructivist Art at the Museum of Fine Arts Houston. Building on a Construct*, exh. cat. Houston: Museum of Fine Arts, 53–68.
- García, M.A. 2011. *El arte abstracto: Intercambios culturales entre Argentina y Brasil*. Buenos Aires: Siglo

- Veintiuno Editores.
- Gottschaller, P. 2017. 'Making Concrete art', in *Making Art Concrete: Works from Argentina and Brazil in the Colección Patricia Phelps de Cisneros*, P. Gottschaller, A. Le Blanc, Z. Gilbert, T. Learner and A. Perchuk (eds), exh. cat. Los Angeles: J. Paul Getty Trust Publications, 24–59.
- Gottschaller, P., Le Blanc, A., Gilbert, Z., Learner, T. and Perchuk, A. (eds) 2017. *Making Art Concrete: Works from Argentina and Brazil in the Colección Patricia Phelps de Cisneros*, exh. cat. Los Angeles: J. Paul Getty Trust Publications.
- Gullar, F. and Bastos, O. 1957a. 'I Exposição Nacional de Arte Concreta: Casimiro Fejer', *Jornal do Brasil* 24 February 1957.
- Gullar, F. and Bastos, O. 1957b. 'Ouro falso', *Jornal do Brasil* [supplement] 24 February 1957.
- Hinkson, L. 2017. *Josef Albers in Mexico*, exh. cat. New York: Guggenheim Museum Publications.
- Hlito, A. 1995. 'Biografía sincrónica de un pintor', in *Alfredo Hlito: Escritos sobre arte*, S. Henríquez Ureña de Hlito (ed.). Buenos Aires: Academia Nacional de Bellas Artes, 190–213.
- Janssen, H. 2009. 'Aspekte der Arbeitsvorgänge bei Georges Vantongerloo', in *Georges Vantongerloo 1886–1965 und seine Kreise von Mondrian bis Bill*, C. Brockhaus and H. Janssen (eds), exh. cat., Stiftung Wilhelm Lehmbruck Museum – Zentrum Internationaler Skulptur, Duisburg, and Gemeentemuseum Den Haag. Zurich: Scheidegger & Spiess, 215–26.
- Kemp, K. 2013. 'Kollektives Wohlbefinden. Das ist die Funktion von Design', in *alex wollner brasil. design visual*, J. Koch (ed.), exh. catalogue, Museum Angewandte Kunst, Frankfurt am Main. Tübingen: Ernst Wasmuth Verlag, 16–17.
- Lemoine, S. 2018, 'From Buenos Aires', in *Manuel Espinosa*, L. Bucellato (ed.). Buenos Aires: Colección Espinosa.
- Melé, J.N. 1999. *La vanguardia del 40: Memorias de un artista concreto*. Buenos Aires: Ediciones Cinco.
- Papazian, A. 1982. 'Liquid golds: their productions and their applications', *Gold Bulletin: The Journal of Gold Science, Technology and Applications* 15(2): 81–9.
- Pérez-Barreiro, G. 1994. 'The negation of all melancholy', in *Arte Concreto Invención, Arte Madí*. Basel: Galerie von Bartha, 4–16.
- Rolland, D. and Touzalin, M. H. 1994. 'Un miroir déformant? Les latino-américains à Paris depuis 1945', in *Le Paris des étrangers depuis 1945*, A. Marès and P. Milza (eds). Paris: Publications de la Sorbonne, 263–9.
- Rothfuss, R. 2011. 'The frame: a problem in contemporary art', in *Cold America: Geometric Abstraction in Latin America (1943–73)*, O. Suárez (ed.), exh. cat. Madrid: Fundación Juan March, 420–21.
- Spitz, R. 2013. 'Luftlinie 10.000km', in *alex wollner brasil. design visual*, J. Koch (ed.), exh. catalogue, Museum Angewandte Kunst, Frankfurt am Main. Tübingen: Ernst Wasmuth Verlag, 28–43.
- Spitz, R. 2014, *HfG Ulm-Kurze Geschichte der Hochschule für Gestaltung*, J. Müller (ed.). Zurich: Lars Müller Publishers.
- Thomas, A. 2006. 'Georges Vantongerloo (1886–1965) "The innovative stranger"', in *Georges Vantongerloo: A Retrospective*, exh. cat. London: Annely Juda Fine Art.
- Thomas, A. 2009. 'Aus der bewegten Geschichte der internationalen Künstlervereinigung Abstraction Création, Paris 1931–1937', in *Für eine neue Welt, Georges Vantongerloo 1886–1965 und seine Kreise von Mondrian bis Bill*, exh. cat., Stiftung Wilhelm Lehmbruck Museum – Zentrum Internationaler Skulptur, Duisburg. Zurich: Scheidegger & Spiess, 227–42.
- Thomas Jankowski, A. 1986. 'Die Einheit von Geist und Materie (Historische Präzisierung)', in *Georges Vantongerloo*, exh. cat., Akademie der Künste, Berlin and Quadrat Bottrop Josef-Albers-Museum, Bottrop. Milan: Electa, 27–30.
- Vantongerloo, G. 1982. *Escritos Ecris Writings*. Buenos Aires: Fundación Pirovano.
- Von Beyme, K. 2005. *Das Zeitalter der Avantgarden. Kunst und Gesellschaft 1905–1955*. Munich: Verlag C.H. Beck.
- Weinberg-Staber, M. 1986. 'Georges Vantongerloo. Mathematik, Natur und Kunst', in *Georges Vantongerloo*, exh. cat., Akademie der Künste, Berlin and Quadrat Bottrop Josef-Albers-Museum, Bottrop. Milan: Electa, 23–6.