

The Alberta Foundation for the Arts Travelling Exhibition Program  
Curated by Shannon Bingeman © 2017 Alberta Society of Artists



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## ABOUT

### THE TRAVELLING EXHIBITION PROGRAM (TREX)

Since 1980, the Alberta Foundation for the Arts (AFA) has supported a provincial travelling exhibition program. The TREX program strives to ensure every Albertan is provided with an opportunity to enjoy fully developed exhibitions in schools, libraries, healthcare centres, and smaller rural institutions and galleries throughout the province.

The TREX program assists in making both the AFA's extensive art collection and the work of contemporary Alberta artists available to Albertans. Four regional organizations now coordinate the program for the AFA:

REGION 1	Northwest – Art Gallery of Grande Prairie
REGION 2	Northeast/North Central – Art Gallery of Alberta
REGION 3	Southwest – Alberta Society of Artists
REGION 4	Southeast – Esplanade Arts & Heritage Centre

### THE ALBERTA FOUNDATION FOR THE ARTS (AFA)

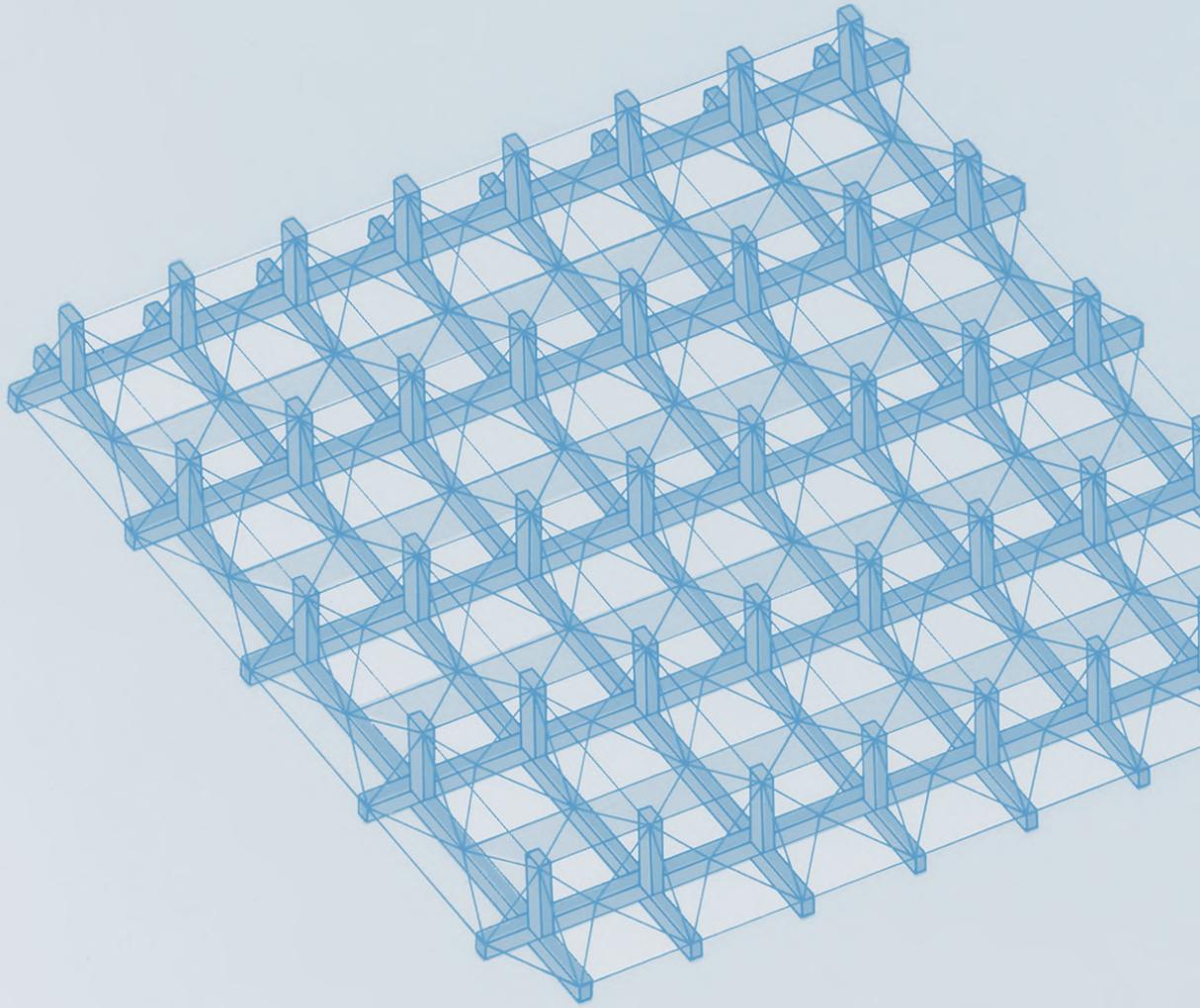
A crown agency of the Government of Alberta, the Alberta Foundation for the Arts was established in 1991 with a mandate to support and contribute to the development of the arts in Alberta.

### THE ALBERTA SOCIETY OF ARTISTS (ASA)

The Alberta Society of Artists is an active membership of professional visual artists who strive for excellence and through exhibition, education and communication will increase public awareness of the visual arts. The ASA is contracted by the Alberta Foundation for the Arts to develop and circulate art exhibitions to communities throughout southwest Alberta. Each exhibition is designed to unpack easily and install within smaller spaces found in schools, libraries, museums and other public venues.









Grids surround us every day. They are the steel, timber, brick and mortar foundation of our buildings, the mapped roads that shape our cities, the network that brings power into our homes, and the binary system that allows our electronic devices to function. Architects use grids when drafting blueprints; accountants use them in the form of ledgers; graphic designers use them as a tool to create balanced designs.

In the visual arts, the grid is most often associated with mid-20th-century Minimalism, Op Art and Color Field painting. Artists associated with these movements were interested in the flatness of the picture plane, which led the American art critic Clement Greenberg to proclaim in 1954 that “pictorial space [in painting] has lost its ‘inside’ and become all ‘outside.’”<sup>1</sup> He declared that painting was headed in a progressive trajectory toward greater abstraction, flatness and purity of form—a direction embraced by a number of leading artists throughout the United States, Europe and Canada. These artists were not concerned with painting for the purpose of representing the natural world. They wanted to create art for art’s sake. Art that alludes to itself. Art that was about pure form. Art devoid of an explicit narrative. The grid became the perfect emblem for this pursuit.

Like its presence in our day-to-day lives, the grid manifests literally and covertly in the artwork selected for this exhibition. In some instances, it is a visible, blatant motif, and in other instances, its presence is implied through the measured, and sometimes, modular construction of the compositions. This collection of work is intended to remind us of the grid’s tremendous influence on 20th-century art and architectural discourse, but also to lead us to contemplate its enduring presence. *On the Grid* is comprised of 17 works of art from the collection of the Alberta Foundation for the Arts (AFA) by 7 artists: Helen Archer, Charles Boyce, Ihor Dmytruk, Christian Grandjean, Harry Kiyooka, Bill McCarroll and Frank Stella.

—Shannon Bingeman, Curator

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1. Clement Greenberg, “Abstract, Representational, and So Forth,” Ryerson Lecture at the School of Fine Arts, Yale University, May 12, 1954. Reprinted in *The Grid Book* (Cambridge: The MIT Press, 2009), 222.

## HELEN ARCHER

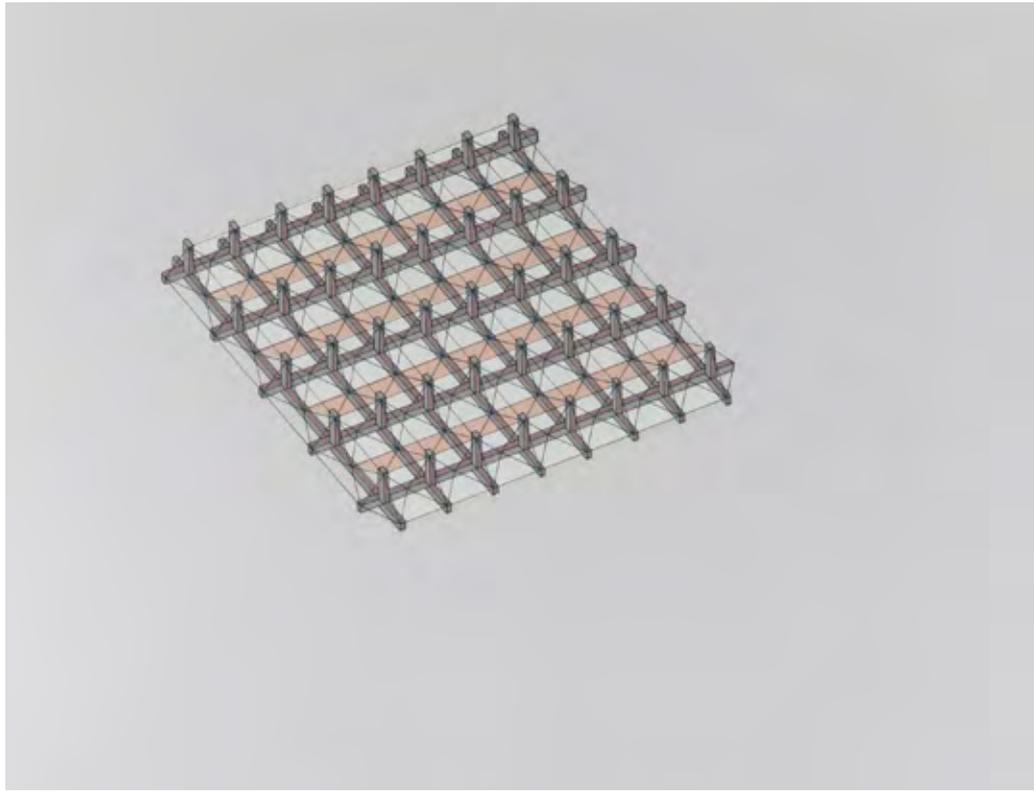
Helen Archer received her formal training from the Alberta College of Art (now the Alberta College of Art + Design or ACAD) where she earned a Diploma of Applied Arts in sculpture. She also studied at the University of Calgary in the Faculty of Arts, including art history, philosophy and psychology, for which she credits a deepened comprehension of and commitment to the use of the human form as an artistic vessel. She has travelled widely and incorporates into her work her experiences with living cultures and divergent perspectives. Born in Kimberly, British Columbia, Archer relocated to Alberta in 1970. She has done work for commercial exhibitions and scene designers, including painting and sculpting for architectural firms, museums and parks. Some of these projects can be seen in the Travel Alberta Milk River Visitor Information Centre, the Montréal Biodôme, the Royal Tyrrell Museum of Paleontology and in animal habitats, such as the Prehistoric Park at the Calgary Zoo. She has acted as a consultant in art restoration for the City of Calgary Civic Art Collection and for Parks Canada on the Banff Cave and Basin National Historic Site restoration project. She has also created several commissioned trophies for sports organizations. Archer's work has been exhibited around the province and is held in several public and private collections.

### VISUAL ANALYSIS

Given Archer's background as a sculptor and experience working for architectural firms, it is not surprising that her two-dimensional work evokes strong structural references. In *Untitled* (1976) and *Structure Series* (1976), the artist plays with depth and the illusion of three-dimensional form through the convergence of lines. In *Untitled*, for example, the combination of solid and dotted lines seems to indicate that the artist is alluding to a three-dimensional space; but, the more the audience looks at the composition, the more difficult it is to picture that environment. The illusion of shifting lines does not come together in a logical manner that we can easily comprehend. It does, however, appear as though the basic square in the middle of the picture plane morphs into a cube toward the bottom right—effectively fluctuating between two- and three-dimensional space. In comparison, the central motif in *Structure Series* is reminiscent of a grid. The lines are more fully rendered and the structure is more convincing as a three-dimensional form; however, in the absence of an outer environment or background, the grid appears to float in space, and it is difficult to establish which side is closest to the viewer and which is furthest away. Again, the artist is playing with our perception of depth.

1. *Structure Series*, 1976. Silk screen on paper, 51 x 56.4 cm.  
Collection of the Alberta Foundation for the Arts.

2. *Untitled*, 1976. Silk screen, mixed media, tape on paper,  
56.5 x 76.4 cm. Collection of the Alberta Foundation for the Arts.



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2.

## CHARLES BOYCE

Charles Boyce was born in Coronach, Saskatchewan and grew up in the neighbouring town of Willow Bunch. A graduate of the Alberta College of Art (now ACAD), he is best known for creating several large-scale sculptures that were installed at locations in Calgary during the 1980s. The most notable of which, *The Spire*, is a 19.88-metre-tall, red, abstract steel sculpture that was commissioned and paid for by the Government of Canada for the 1988 Winter Olympic Games in Calgary. As the artist describes, the abstract forms that comprise the sculpture are intended to depict the progression of human movement “by their various positions: crawling, walking, running, jumping and flying.” The outline of *The Spire* is also reminiscent of both a spaceship and steeple, “symbolizing man’s reaching out to explore the galaxy, and [. . .] man’s discovery of the universe within.”<sup>2</sup> The design was selected by a committee from 93 submissions and was installed in front of the Olympic Oval for speed skating at the University of Calgary. At the time of its installation, it was the tallest work of public art in the city.

### VISUAL ANALYSIS

If you look closely at the 3 drawings from Boyce’s *Permutations of a Seven Sided Circle* series, you will notice that each is created using grid paper. This choice of material gives the impression that the drawings are drafts for a final project. Furthermore, the title of the work seems to elicit an ongoing mathematical problem that the artist is in the process of investigating. The word permutation, in mathematics, means to change the order or arrangement of elements in all possible ways, which Boyce appears to be doing. The shapes in each of his drawings are all related, but executed with slight variations. Given the artist’s background as a sculptor, it is possible that these were preliminary studies for a sculpture. This theory seems even more plausible when considering another work by Boyce from the AFA collection, *Permutations on a Five Sided Circle*. In this piece, the individual shapes that the artist conjoins are reminiscent of the shapes found in his drawings. Whether or not the drawings included in this exhibition were ever intended as preliminary studies, they can stand as independent works of art, strengthened by their composition and the structure of the grid pattern. There is irony, too, in their title, because despite the artist’s many varied attempts, conceptually we know that a circle cannot have sides.

1. *Knossis (U of C Portfolio Interiors)*, 1979. Lithograph on paper. 48 x 35 cm. Collection of the Alberta Foundation for the Arts.

2. *Permutations of a Seven Sided Circle*, 1984. Pencil, plastic on paper. 81 x 81.3 cm. Collection of the Alberta Foundation for the Arts.

3. *Permutations of a Seven Sided Circle*, 1984. Pencil, plastic on paper. 81 x 81.3 cm. Collection of the Alberta Foundation for the Arts.

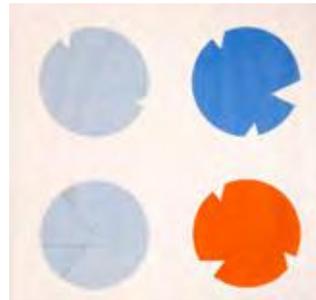
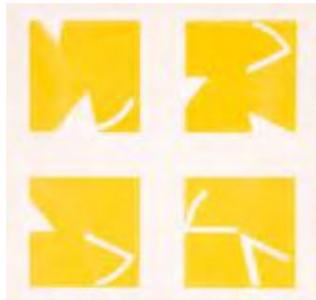
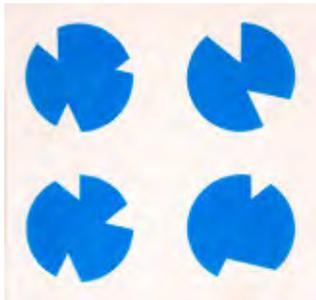
4. *Permutations of a Seven Sided Circle*, 1984. Pencil, plastic on paper. 76 x 81.5 cm. Collection of the Alberta Foundation for the Arts.

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2. Charles Boyce quoted in “City Sculptor’s design chosen for Games oval,” *Calgary Herald*, January 31, 1987.



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## IHOR DMYTRUK

Born in Kamianka-Buzka, Ukraine, painter Ihor Dmytruk moved to Canada in 1949. He lived for a time in Montreal (1967 – 1968) while devoting himself to art full-time. After relocating to Edmonton to study at the University of Alberta (U of A), he furthered his education at Vancouver School of Art (1963). He then returned to Edmonton to teach at the Faculty of Extension at NAIT or the Northern Alberta Institute of Technology (1964 – 1973), the Edmonton Art Gallery (now known as the Art Gallery of Alberta or AGA) (1963 – 1967), the U of A's Faculty of Fine Arts (1970 – 1972 and 1981 – 1982) and Faculty of Extension (1964 – 1983). Dmytruk received an Honourable Mention from the *All-Alberta Exhibition* (1966), and two Canada Council for the Arts grants. His work has appeared in numerous group and solo exhibitions, including at Edmonton's Visions Gallery, the U of A's Extension Centre Gallery, the *Winnipeg Show*, the *All-Alberta Exhibition*, the Edmonton Art Gallery (now the AGA), and in Canadian Drawings and Prints at the Cardiff Contemporary Visual Arts Festival in England. The Principal Trust Heritage Series commissioned him to draw the Alberta Temple in Cardston, Alberta; he completed several portrait drawings for the Ukrainian-Canadian Archives and Museum of Alberta. Several public collections house Dmytruk's paintings, including those of the AGA, the Art Gallery of Windsor and the Canada Council Art Bank.

### VISUAL ANALYSIS

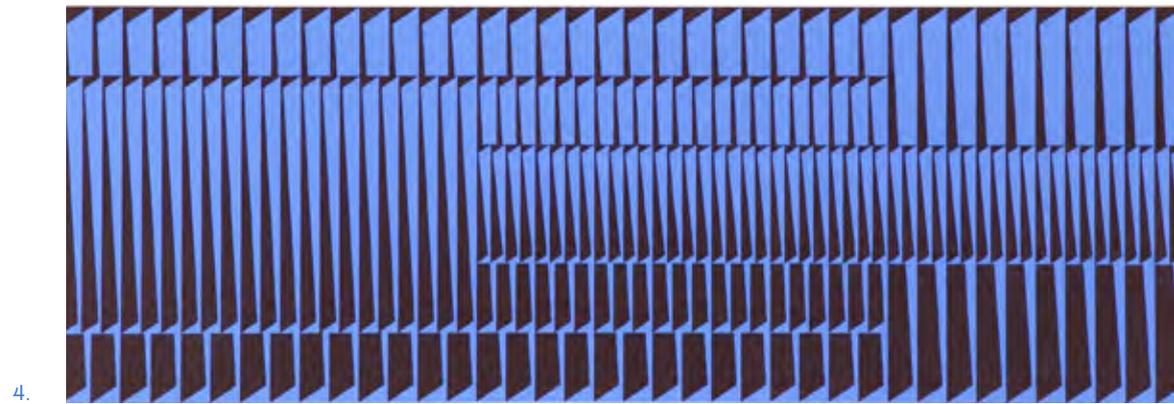
There is a calm, ordered solemnity to Dmytruk's work from the early 1970s. The cool, grey tones of his palette do not elicit the same retinal effects as the bold pulsating colour relationships found in work by Harry Kiyooka (page 20) or Frank Stella (page 24). Dmytruk is not interested in optical effects achieved by colour. Instead, his primary motivator is form and the interrelationship of a single shape—or module—repeated to create the illusion of three-dimensional space. Each work that he generates involves careful planning on draft paper. A single shape is flipped, repeated, manipulated and regrouped until a unified composition is achieved. These initial drawings inform his final compositions, which he renders both in paint and in print. Although his practice is based on a largely intuitive process, Dmytruk cites the hard, man-made form of the urban environment as his inspiration. When looked upon at a distance, his prints do seem to take on the form of the urban environment with a strong three-dimensional architectural reference. There is also a push and pull effect that happens upon closer inspection. When the flatness of the individual modules is revealed, we are reminded that what we are looking at is, indeed, an illusion.

1. *Print #1*, 1972. Silk screen on paper, 33 x 90.1 cm.  
Collection of the Alberta Foundation for the Arts.

2. *Print #4*, 1972. Silk screen on paper, 33 x 83 cm.  
Collection of the Alberta Foundation for the Arts.

3. *Print #5*, 1972. Silk screen on paper, 33 x 82.5 cm.  
Collection of the Alberta Foundation for the Arts.

4. *Print #6*, 1972. Silk screen on paper, 38 x 89.6 cm.  
Collection of the Alberta Foundation for the Arts.



## CHRISTIAN GRANDJEAN

Christian Grandjean is an accomplished photographer who studied his craft in Paris and London. He currently resides in Calgary, Alberta. His first exhibition took place in London (UK) in 1979, and since then he has exhibited his photographs throughout Europe and North America. His photographs depicting urban environments are in many collections, including the London Borough of Tower and the Leicestershire Collection in England and the Nickle Arts Museum in Calgary. Grandjean also has a long history of printmaking. Coupled with his photography, Grandjean has expressed a love for urban environments and he idealizes city grids and their clarity of form.

### VISUAL ANALYSIS

While Minimalism, Op Art and Color Field painting dominated visual art practices during the mid-20th century, in architecture it was the skyscraper that came to epitomize modernity. Stripped of any superfluous detail and ornamentation, both the exterior and interior of these buildings adhered to a grid pattern. The repetitive modular arrangement of windows visible from the exterior mirror the carefully organized cubicles and offices within. At the time, it was believed that this arrangement would lead to a more productive workforce, based on the principles of mass production and efficiency. The flooding of light and the transparency of materials from the extensive use of windows was intentional and was meant to symbolize enlightenment. In Grandjean's photographs, *Calgary #1* (2008) and *Calgary #4* (2008), he captures these vestiges of the modern world found in so many cities today. Both photographs capture downtown Calgary skyscrapers and reveal the play of light across their reflective surfaces. Among the work selected for this exhibition, these are the only two pieces that possess figurative subjects; however, the way the artist crops the frame of his photographs and excludes the space surrounding the buildings, they appear almost as abstract paintings. The focus becomes the lighting effects on the grid-like pattern of the windows rather than the building itself.

1. *Calgary #1*, 2008. Inkjet photograph on paper, 43 x 56 cm.  
Collection of the Alberta Foundation for the Arts.

2. *Calgary #4*, 2008. Inkjet photograph on paper, 43 x 56 cm.  
Collection of the Alberta Foundation for the Arts.



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2.

# HARRY KIYOOKA

Harry Kiyooka was born in Calgary in 1928, and became a prolific abstract artist, collector and art advocate. In 1954, he received his BFA from the University of Manitoba, which was quickly followed by an MA from Michigan State University (1956) and an MFA from the University of Colorado (1957). From 1958 to 1961, the artist studied in Italy on a scholarship from the Canada Council for the Arts. He returned to Calgary after his time abroad for a position at the University of Calgary, where he taught for the next 27 years. Known for his bold, abstract paintings that explore colour relationships, Kiyooka has exhibited extensively across Canada and throughout the United States, Europe and Japan. He has played a pivotal role in the Calgary arts community as a founding member of the Calgary Contemporary Arts Society (1982), the founder of the Triangle Gallery of Visual Arts (now a part of Contemporary Calgary), a Life Member of the Alberta Society of Artists and a member of the Royal Canadian Academy. He now lives in Springbank, Alberta with his wife, the artist Katie Ohe. Together the couple have been working toward turning their 20-acre property into the Kiyooka Ohe Arts Centre (KOAC)—a charitable society and gallery that will become a site for artists to do residencies.

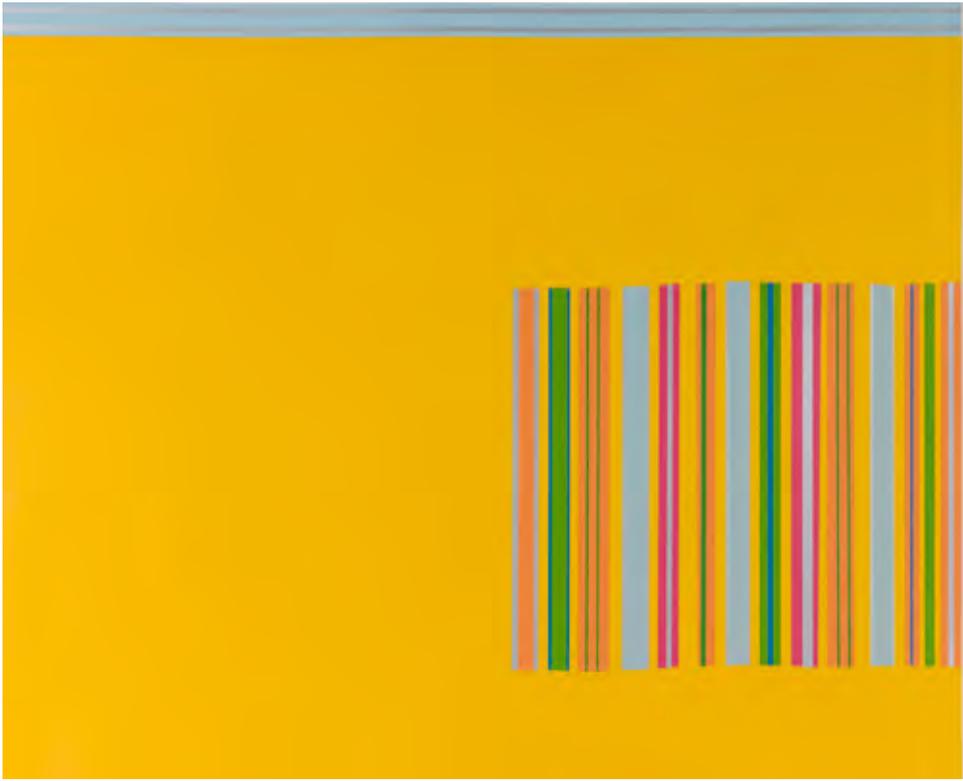
## VISUAL ANALYSIS

Despite having titles that would suggest representational environments, Kiyooka's works are devoid of any semblance to traditional linear perspective. His compositions are often comprised of geometrical, hard edge forms with repeating modules where an emphasis is placed on colour relationships and the optical effect of their juxtapositions. *Sky Scape* (n.d.) and *Mirage* (n.d.) are both indicative of these characteristics. In *Sky Scape*, the bold yellow that dominates the picture seems to evoke the colour of the sun; and in *Mirage*, the artist appears to be exploring the effect of metallic colours. Both feature horizontal bands along the top of the composition and a smaller shape that is comprised of a network of stripes arranged tightly together. Although the artist is best known for his large-scale paintings, these works are examples of silk screens. Kiyooka, in fact, was one of the first Canadian modern artists to use this technique during the 1960s and into the 1970s (it was a preferred medium for many Pop Art, Minimalist and Op Art artists because of its ability to sharply delineate areas of flat colour). As Kiyooka once stated, "of all the techniques, [silk-screening] is the one most amenable to using colour, and colour is important for my work."<sup>3</sup>

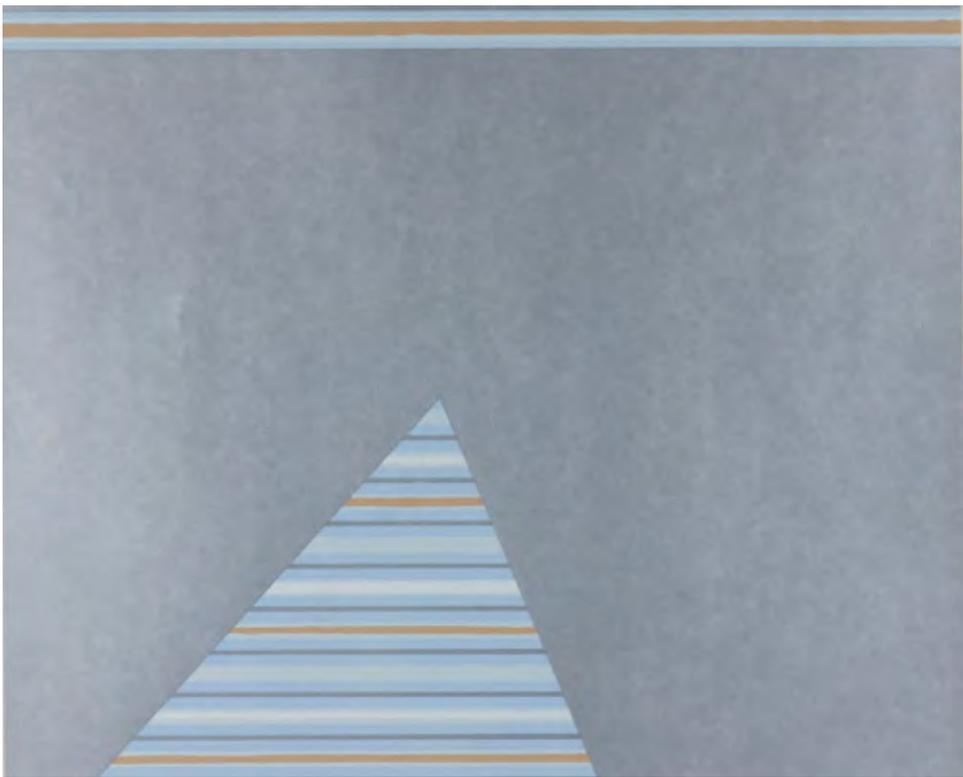
1. *Sky Scape*, n.d. Silk screen on paper, 65 x 77.5 cm. Collection of the Alberta Foundation for the Arts.

2. *Mirage*, n.d. Silk screen on paper, 64.8 x 74.9 cm. Collection of the Alberta Foundation for the Arts.

3. Harry Kiyooka quoted in "Printmaking in Alberta: 1945 – 1985," (Edmonton: University of Alberta Press, 1989), 91.



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2.

## BILL MCCARROLL

Born in Santa Barbara, California, Bill McCarroll received his BA from the California State University in San Francisco (1967) and his MA from the California State University in Humboldt (1969). He taught ceramics at Humboldt State College and worked as an architectural fiberglass designer before moving to Lethbridge, Alberta in 1971. Between 1971 and 1995, McCarroll taught at the University of Lethbridge Faculty of Fine Arts, founded their extensive art collection, and held a number of prominent positions, including Director/Curator of the Art Gallery, Chair of Visual Arts, member of the Art Advisory committee and Professor Emeritus. Over the years, his painting and printmaking practice has explored both abstracted and representational imagery that often references 20th-century art historical discourse with humour and wit. He has exhibited all over Canada and in the United States and his work can be found in a number of prominent collections, including the Canada Council Art Bank, Glenbow Museum, University of Saskatchewan, Nickle Arts Museum and Art Gallery of Nova Scotia. In 2009, he was inducted into the Royal Canadian Academy of Arts. He continues to live and work in Lethbridge.

### VISUAL ANALYSIS

McCarroll describes his abstract work as “procedural methodic layered paintings.”<sup>4</sup> He does not approach each composition with an end goal in mind but sees where his process will take him. That process begins with the application of several layers of *gesso*. He then uses a sharp tool to scratch a grid onto the surface. The grid helps to define the border of the central image and guide where the shapes and colours will be applied with paint intuitively. Over time, the grid becomes less and less visible as more layers of paint are applied and sanded down to establish texture. In the end, once the paint has dried completely, McCarroll will carve into the surface once more to re-define the edges of the shapes. *Field* (2011) is a prime example of this technique and is representative of McCarroll’s return to abstraction after more than 15 years of pursuing figurative subject matter. Looking closely at *Field*, one notices the subtle presence of the underlying grid, which divides the canvas equally into 4 x 4-inch squares. The yellow shape in the centre becomes the focal point and almost mirrors the trapezoid shape in his drawing *Slant I* (1980). Created earlier in the artist’s career, this drawing is among a larger series of work in which McCarroll explored the formal aspects of the rhombus, rectangle and trapezoid through a number of permutations. Different from the bordered composition in *Field*, the shape in *Slant I* pushes to the edge of the picture plane and is rendered in graphite (rather than paint). This has the effect of undermining the strength of the shape through the fragility of the medium. Unlike the sharp, delineated edges in his paintings, the lines in *Slant I* are blurred and remind us of the human hand that created them.

1. *Field*, 2011. Acrylic, pencil crayon on board, 30 x 30 cm.  
Collection of the Alberta Foundation for the Arts.

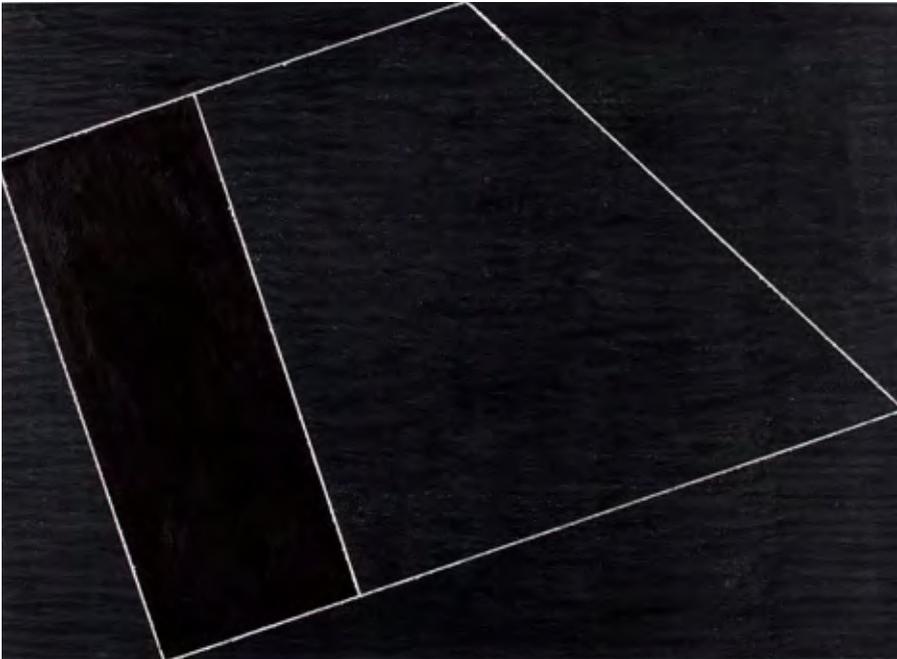
2. *Slant I*, 1980. Graphite, acrylic on paper, 55 x 71 cm.  
Collection of the Alberta Foundation for the Arts.

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4. Bill McCarroll, excerpt from an artist statement for *backwards is sometimes forward*, Stride Gallery, 2010.



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2.

## FRANK STELLA

Born in Malden, Massachusetts, Frank Stella is regarded as one of the most prominent American artists of the 20th century and one of the first artists to create truly non-representational paintings. His exploration into the world of abstract art began as a sophomore in high school at Phillips Academy in Andover, Massachusetts where he was taught by an abstract artist, Patrick Morgan. At Princeton University (1954 – 1958) Stella continued to take art classes and was exposed to the work of leading New York artists, including Jackson Pollock, Franz Kline and Jasper Johns. After graduation, Stella moved to the Lower East Side of New York to set up a studio and it was not long before his work gained critical attention. His use of a monochromatic palette and flat application of paint set him apart from the gestural brushstrokes that were characteristic of Abstract Expressionism (the dominant movement of the period). Stella aimed to create work that emphasized form rather than content and famously described painting as “a flat surface with paint on it—nothing more.”<sup>5</sup> Although Stella never considered himself a part of the Minimalism movement, his work is often credited as a catalyst for the movement and inspired Minimalist, Color Field and Op Art artists like Carl Andre, Kenneth Noland and Donald Judd.

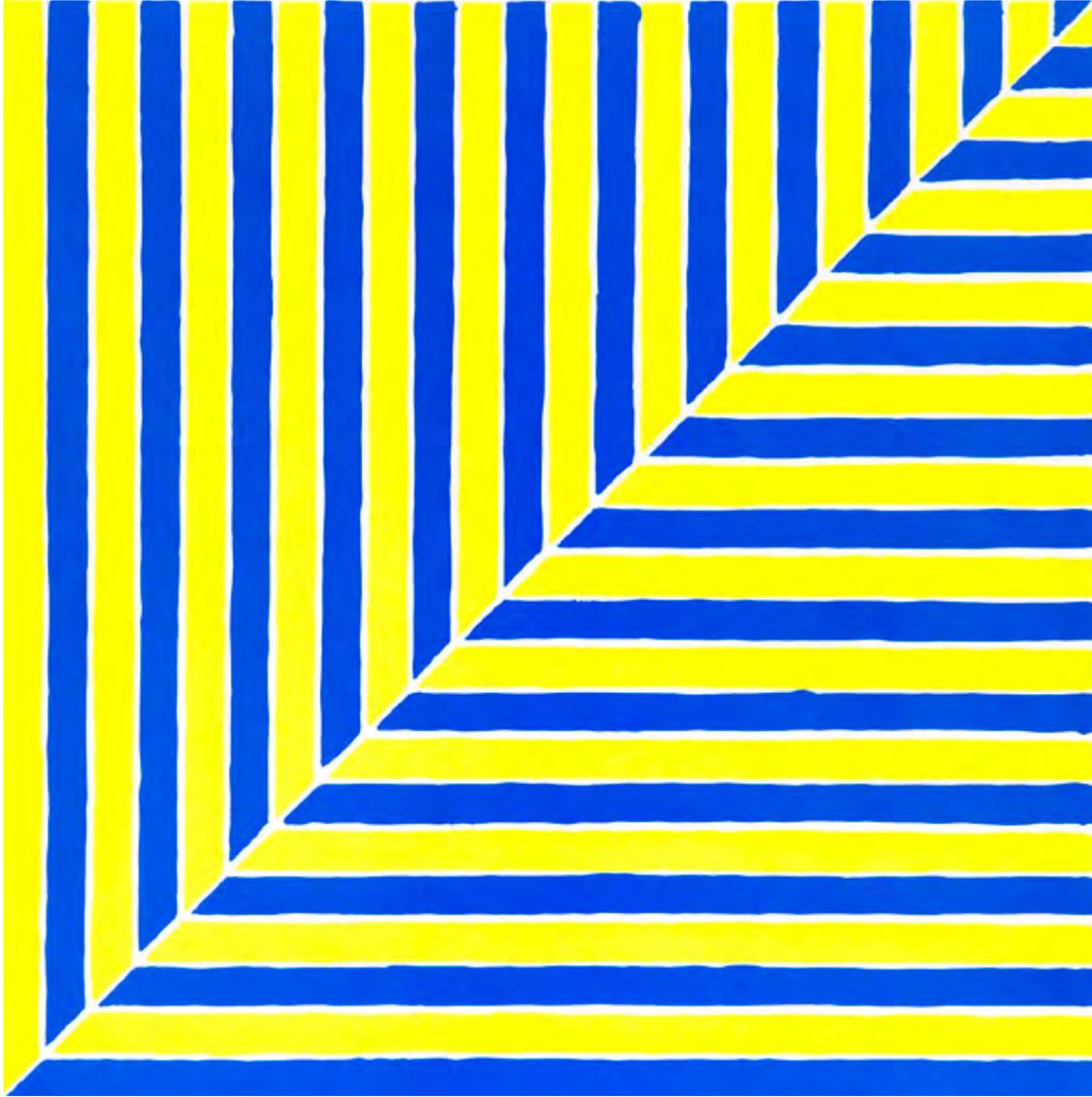
### VISUAL ANALYSIS

*Rabat* (1964) adheres to the distinctive, formalist style that Stella is known for in his painting practice. The composition retains the formal qualities of a square, but it is interrupted by a diagonal line that creates two sections of opposing lines in alternating colours: blue, yellow. The print was originally commissioned in 1964 by the Wadsworth Atheneum Museum of Art located in Hartford, Connecticut. It was among a portfolio of silk screens titled, *X + X (Ten works by Ten painters)*, which also featured the work of other prominent American modernists: Stuart Davis, Robert Indiana, Ellsworth Kelly, Roy Lichtenstein, Robert Motherwell, George Ortman, Larry Poons, Ad Reinhardt and Andy Warhol. Five hundred editions of the portfolio were created and purchased by private patrons and institutions, such as the Tate Modern (London, UK), MoMA (New York) and the National Gallery of Art (Washington, DC). The original editioned portfolio that this print was included in was dismantled, and the silk screens sold individually. Its inclusion in the collection of the AFA is a bit of an anomaly. Despite the AFA's mandate to collect the work of Alberta artists, neither the artist nor the print bear a connection to the province (the piece was acquired by donation before the foundation adopted stricter guidelines for its acquisitions). Nevertheless, *Rabat* remains in the collection as a prime example of modern art from the mid-20th century; Stella's work was incredibly influential to many Alberta artists, including those represented in this exhibition.

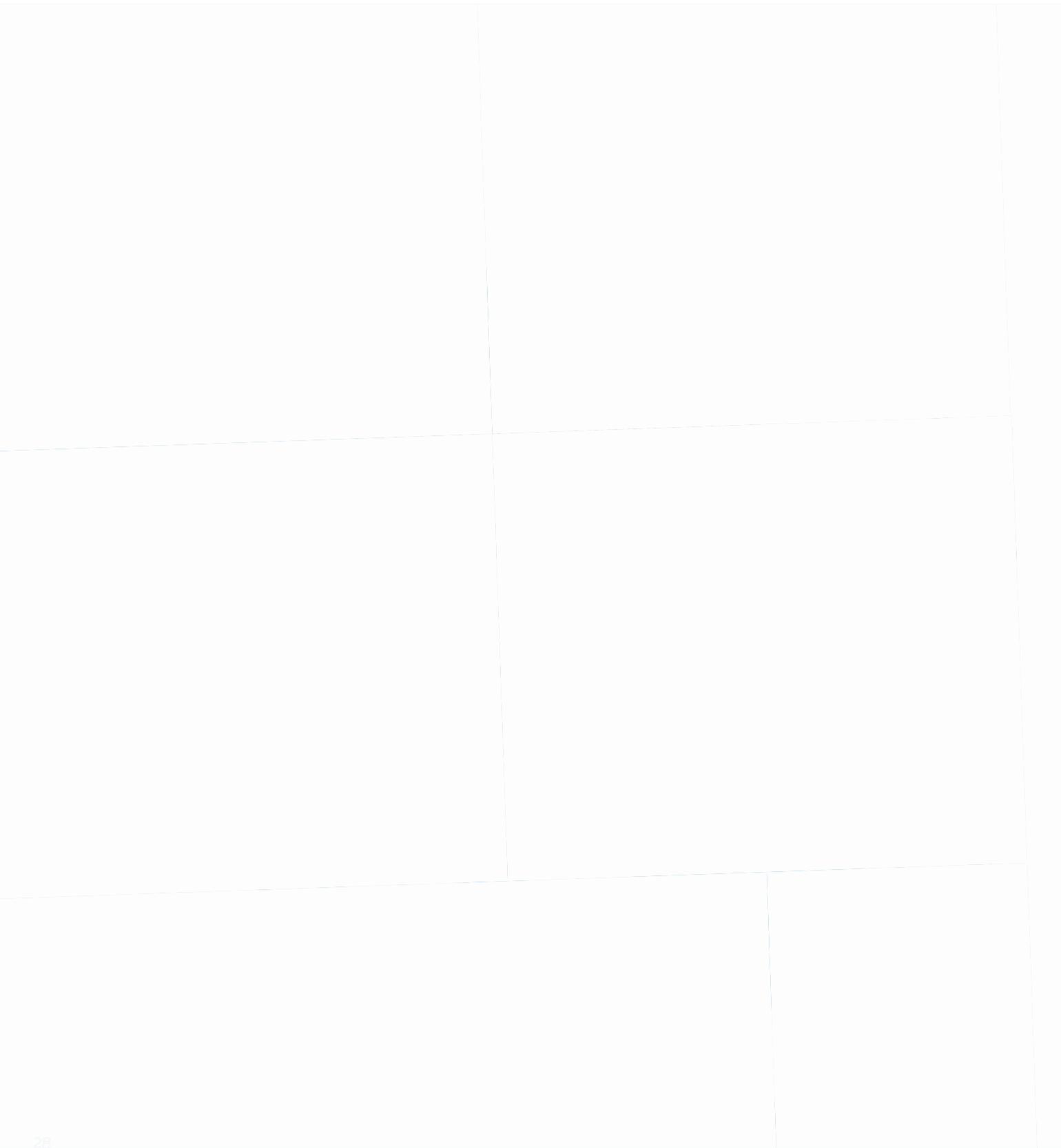
1. *Rabat*, 1964. Silk screen on paper, 60.8 x 55.6 cm.  
Collection of the Alberta Foundation for the Arts.

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5. Frank Stella, quoted in The Art Story: Modern Art Insight, “Frank Stella: American Painter and Printmaker,” accessed in January 2017, <http://www.theartstory.org/artist-stella-frank.htm>.



1.



This education guide is comprised of activities to move the audience through the various themes presented in *On the Grid*. The content of the exhibition and the following lesson plans have been carefully developed and designed to enhance the curriculum set by Alberta Education. The guide includes questions for discussion, vocabulary and activities designed for the level of ability, understanding and complexity of the participants:

Beginner – viewers who are just beginning their exploration of art.

Intermediate – viewers who have some experience looking at and creating art.

Advanced – viewers who have much experience looking at and creating art.

For curriculum links and additional resources, please visit our website:  
<http://albertasocietyofartists.com/trex>

## DISCUSSION QUESTIONS

Below are suggested questions that are intended to prompt meaningful discussion about the content presented in *On the Grid*. The questions can be selected and the vocabulary altered to suit the appropriate age level.

*Look for examples of grids in the environment surrounding you (e.g., patterns found on clothing, the arrangement of tiles on the floor and so on).*

*Without looking at the artwork labels, can you guess which artworks were created by the same artist? Does each artist have a distinctive style? Are there some artists whose styles are similar to one another?*

*In The Grid Book, author Hannah B. Higgins writes, “even the flattest modernist form is dynamic, things change as we view them, and we often assign meaning even to abstract forms.”<sup>6</sup> Did you have this experience while looking at the work on display? If so, can you describe that experience?*

*The curatorial statement that accompanies this exhibition references four occupations (architects, accountants, graphic designers and artists) that use grids on the job. Can you think of any additional occupations that rely on grids in different forms? Give examples.*

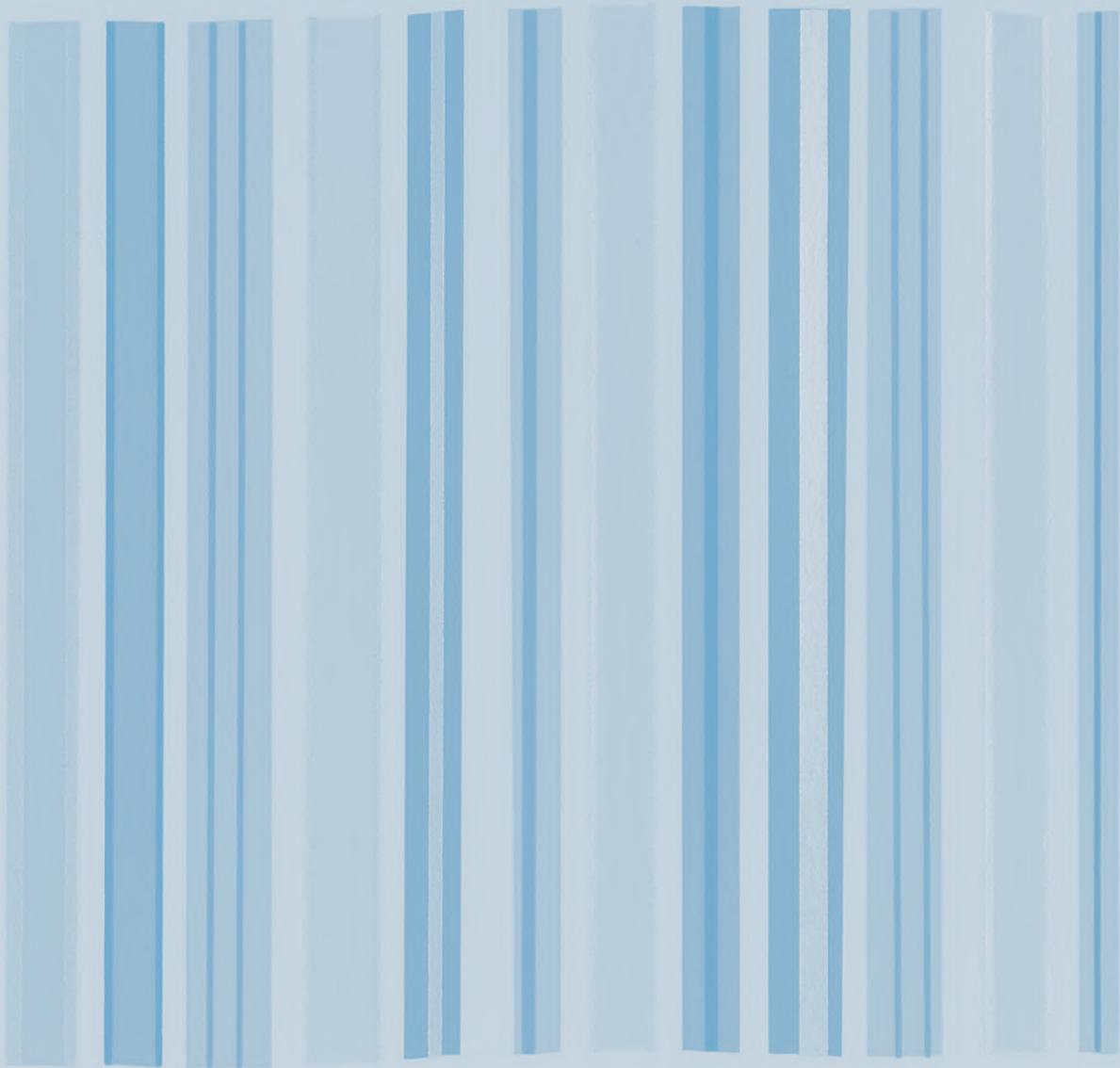
*Can you find examples in the artwork of compositions that rely on repetitive modular units?*

*Many 20th-century modernist artists were interested in the concept of “pure form.” What do you think that means? Can you find examples of pure form in this exhibition?*

*Of all the work in the exhibition, which artwork(s) do you feel are more representational compared to others?*

*Look at the prints by Harry Kiyooka before reading the artwork label. What are some of your immediate impressions? Discuss them as a group. Then, read the titles for both works of art. Do the titles affect the way you interpret them? Why or why not?*

6. Hannah B. Higgins, *The Grid Book* (Cambridge: The MIT Press, 2009), 223.





### FROEBEL'S GIFTS

In 1954, the art critic Clement Greenberg argued that the dominance of the grid in the visual arts was the result of a natural evolution that was moving away from representational imagery toward greater abstraction and purity of form. This analysis, though influential at the time, has been called into question in recent years. Current research suggests that Friedrich Froebel's (the founder of kindergarten) pedagogical approach to early childhood education had a profound influence on many of the leading artists of the 20th century, including Piet Mondrian, Paul Klee, Wassily Kandinsky and Frank Lloyd Wright. Froebel's approach focused on two parallel processes: the giving of "gifts" from the teacher to the student and the giving of "occupations" from the student to the teacher. *Gifts* are an interpretation of the outside world transformed into geometric shapes (moving from the concrete to the abstract), and *occupations* are the ways in which the participants transform the geometric shapes into their interpretations of the world around them (moving from the abstract to the concrete). Leading modernist architect, Frank Lloyd Wright, describes the influence of this process:

I sat at the little kindergarten table-top ruled by lines about four inches apart each way making four-inch squares; and, among other things, played upon these "unit lines" with the square (cube), the circle (sphere), and the triangle (tetrahedron or tripod) [. . .]. The virtue of all this lay in the awakening of the child-mind to the rhythmic structure in Nature—giving the child the sense of innate cause-and-effect otherwise far beyond child-comprehension. I soon became susceptible to constructive pattern *evolving in everything I saw*. I learned to see this way, and, when I did, I did not care to draw casual incidentals of Nature. I wanted to *design*.<sup>7</sup>

In this lesson plan, participants will be introduced to Froebel's gifts and investigate geometric form through imaginative play. The final step will be a class trip to see *On the Grid* and participants will be asked to identify different colours and forms in the artwork.

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7. Frank Lloyd Wright, *A Testament* (New York: Horizon Books, 1957), 19 – 20.

## MATERIALS

Yarn balls (various colours), wooden shapes (i.e., spheres, cylinders, cubes, rectangles and triangular prisms), coloured wood or plastic parquetry tablets (a variety of shapes, e.g., square, triangles, circle and/or semicircle).

## PREPARATION

Cover the participant's work surface with paper and use a ruler and black marker to draw a grid of 4-inch squares. The participants will explore their gifts and build imaginary objects and structures upon this surface.

## INSTRUCTIONS

1. Introduce the first gift to the participants.
2. Invite the participants to build things with the gift and discover how each piece moves on their work surface. As they are playing with the forms, ask the participants to describe what they are imagining.
3. As a group, differentiate the forms in the gift by naming either the colour (in Gift 1 and 7) or shape (in Gifts 2 to 7). Ask the participants to sort the gifts into these categories.
4. Discuss the gift as a group using the questions listed in the corresponding section below. Feel free to add different questions throughout the process.
5. Repeat steps 1 to 4 for each of the gifts.
6. For Gifts 3 to 7, ask participants to create patterns and designs by placing the shapes flat on their work surface (instead of working three-dimensionally).
7. Take the participants to see the exhibition and ask them to identify certain shapes and colours in the artwork. It may be useful to bring along examples of the gifts to remind them of the similarities between the shapes and colours they explored in the classroom, and the shapes and colours in the artwork.



### **GIFT 1: COLOURED YARN BALLS**

Description: Small balls of yarn that can easily fit into the hand of the participant.

Quantity: A variety of colours per participant or proportioned out to workstations.

*Ask: how does the object feel in your hands? Does the shape of the object change if you squeeze it? Does the object have any sharp edges or corners? What does the object smell like? Can you try rolling the ball? Does it move quickly or slowly?*

### **GIFT 2: SPHERE, CYLINDER AND CUBE**

Description: Small shapes (e.g., sphere, cylinder and cube), each roughly the same size

Quantity: One sphere, one cylinder and one cube per participant or workstation.

*Ask: how does the object feel in your hands? How is it different than Gift 1? How many edges, corners and/or surfaces are there on each shape? Does the object roll? Can it stand? What does it sound like when you tap it softly against the table? Is it possible to stack the three shapes on top of one another? Does each shape have a top, bottom and/or sides?*

### **GIFT 3: THE DIVIDED CUBE**

Description: Small cubes of the same size, presented to the participant stacked together to create a larger cube.

Quantity: Eight cubes of the same size per participant or workstation.

*Ask: what shape is this? Have you seen this shape before? How many individual pieces are there? How many edges, corners and/or surfaces does each piece have? Ask a variety of basic addition and subtraction questions, e.g., if you take away one of the pieces, how many are you left with? Have the participant act out the question.*

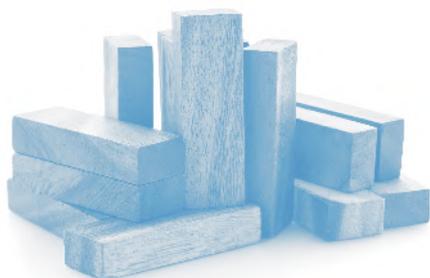
### **GIFT 4: RECTANGULAR PRISMS**

Description: Similar to the activity in Gift 3, but this time use rectangular blocks (all of equal shape) and presented to the participant stacked together.

Quantity: Eight rectangular blocks per participant or workstation.

*Ask: what shape is this? Have you seen this shape before? How many individual pieces are there? How many edges, corners and/or surfaces does each piece have?*

Introduce the following new words: brick, tile, steps, rectangle, direction, vertical, horizontal, height, width and length.



### **GIFT 5: CUBES AND TRIANGULAR PRISMS**

Description: Similar to the activity in Gift 3, but this time use rectangular blocks (all of equal shape) and presented to the participant stacked together.

Quantity: Eight rectangular blocks per participant or workstation.

Ask: *what shape is this? Have you seen this shape before? How many individual pieces are there? How many edges, corners and/or surfaces does each piece have?*

Introduce the following new words: angle, triangle, diagonal and rectangular prism.



### **GIFT 6: CLASSIC BUILDING BLOCKS**

Description: A variety of rectangular prisms that can be used in classic constructions. The introduction of the column shape lends a strong architectural component.

Quantity: Eighteen rectangular blocks, 12 flat square blocks, 6 narrow columns per participant or workstation.

Ask: *what shapes are these? Are there any new shapes that you haven't played with? How many individual pieces are there? How many edges, corners and surfaces does each piece have? Can you arrange these shapes to create a form that looks like a building?*



Introduce the following new words: scale, proportion and area.

### **GIFT 7: PARQUETRY TABLETS**

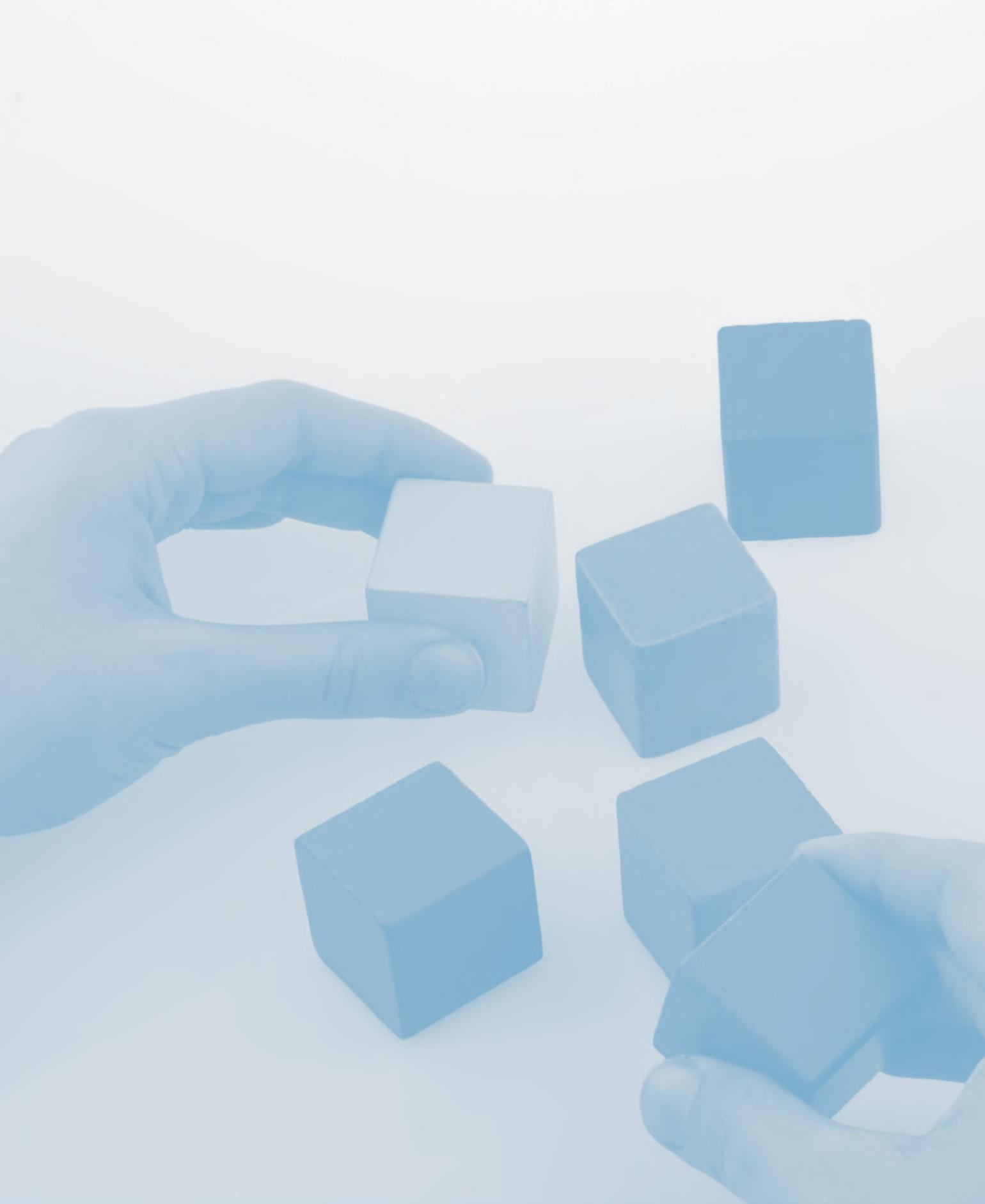
Description: A variety of flat, geometric, coloured shapes made from wood, plastic or paper. While the first gifts involved the participants creating three-dimensional impressions of objects in their world, this step signifies a move toward the flat two-dimensional surface.

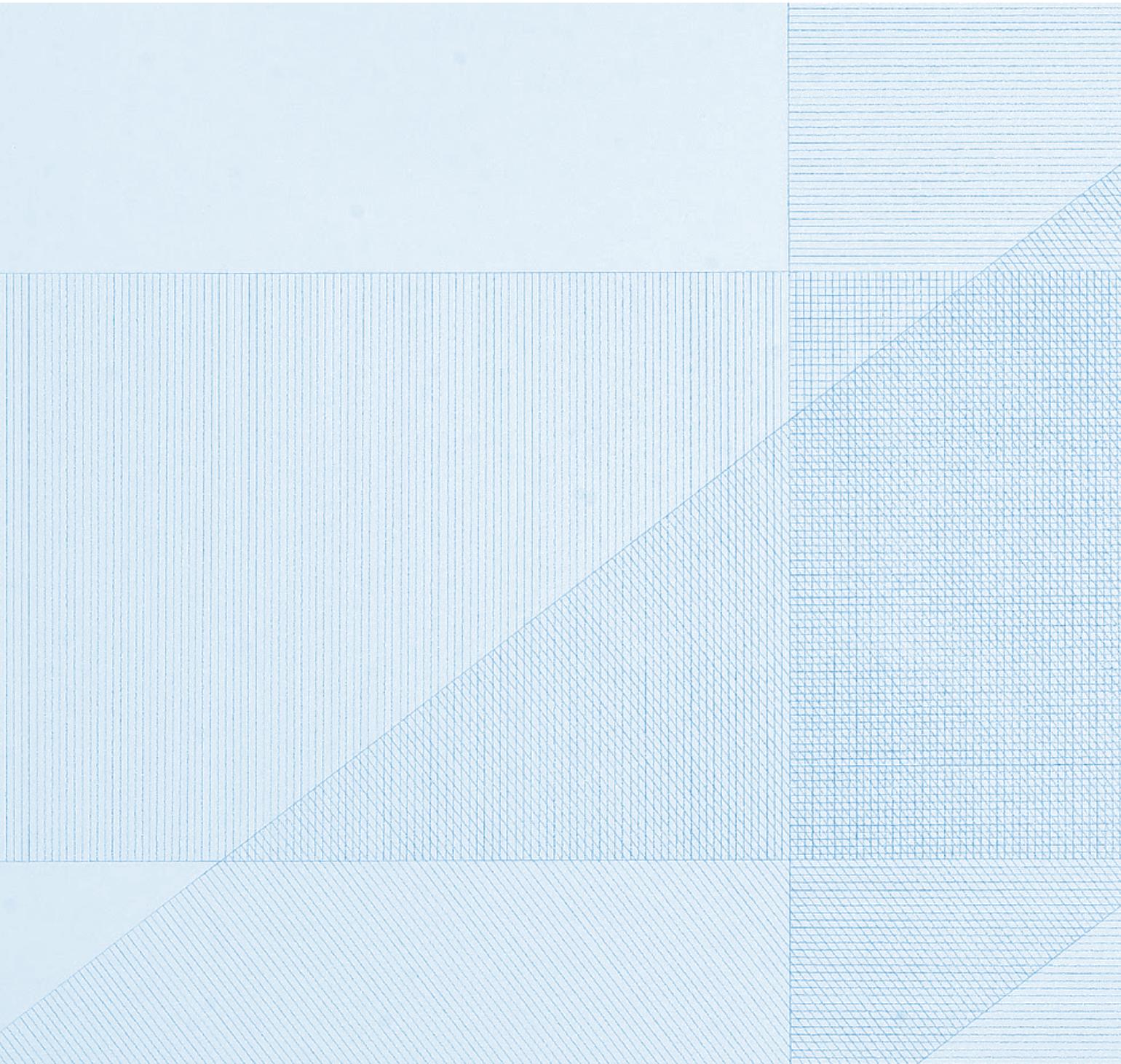
Quantity: A variety of shapes such as squares, equilateral triangles, a right-angled isosceles triangle, a right-angled scalene triangle, an obtuse isosceles triangle, a circle and a semicircle.

Ask: *what shapes are these? Do they remind you of any of the shapes in the previous gifts? Can you make a square using only triangles? How about a circle using semicircles? And so on. Can you use the same shapes to create different pictures? Did you choose certain colours on purpose when you were creating your picture?*

### **VARIATION**

For older participants – while looking at the artwork in the gallery space, ask participants to create two-dimensional designs inspired by a selected work using coloured parquetry tablets.





### INSTRUCTIONS FOR A LINE DRAWING

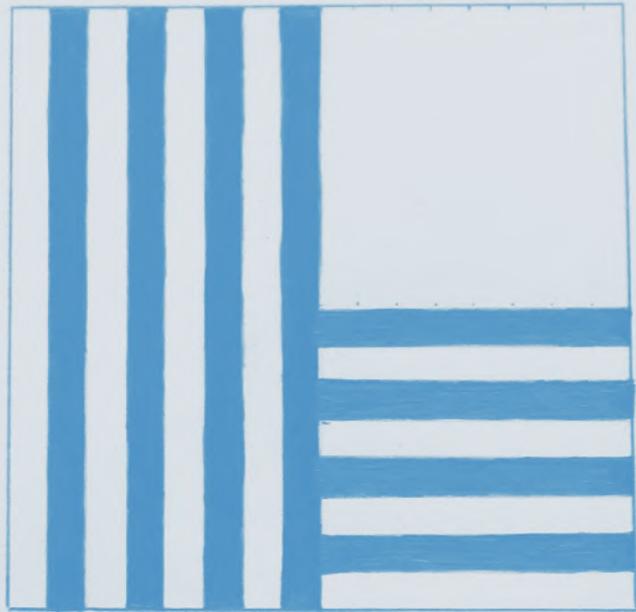
In 1968, American artist Sol LeWitt held a solo exhibition at Paula Cooper Gallery in New York City. The exhibition was comprised of wall drawings that were not executed by the artist, but instead, several assistants who were following his written instructions. In *Wall Drawing #16* (1969), for example, the artist wrote the following: “bands of lines 12 inches (30 cm) [sic] wide, in three directions (vertical, horizontal, diagonal right) intersecting.”<sup>8</sup> The finished drawing that was presented was based on the assistants’ interpretation of these specific—and yet, ambiguous—instructions. Because it was created directly on the wall, the drawing was also temporary and only existed for the duration of the exhibition. As a conceptual artist, LeWitt was interested in exploring the idea of authorship. He believed that art existed in the idea for the work and not in its execution or the finished product. Over the years, LeWitt wrote hundreds of instructions following this approach and if there was a commonality that runs through most of these instructions, it is an emphasis on measurement, line and geometric form. In fact, the basic square is a motif that repeats itself throughout these instructions, along with references to the grid.

In this activity, participants will mimic Sol LeWitt’s conceptual approach to create a line drawing on a smaller scale. They will write a series of instructions and trade those instructions with a partner. Each person will execute a line drawing based on another participant’s instruction.

### MATERIALS

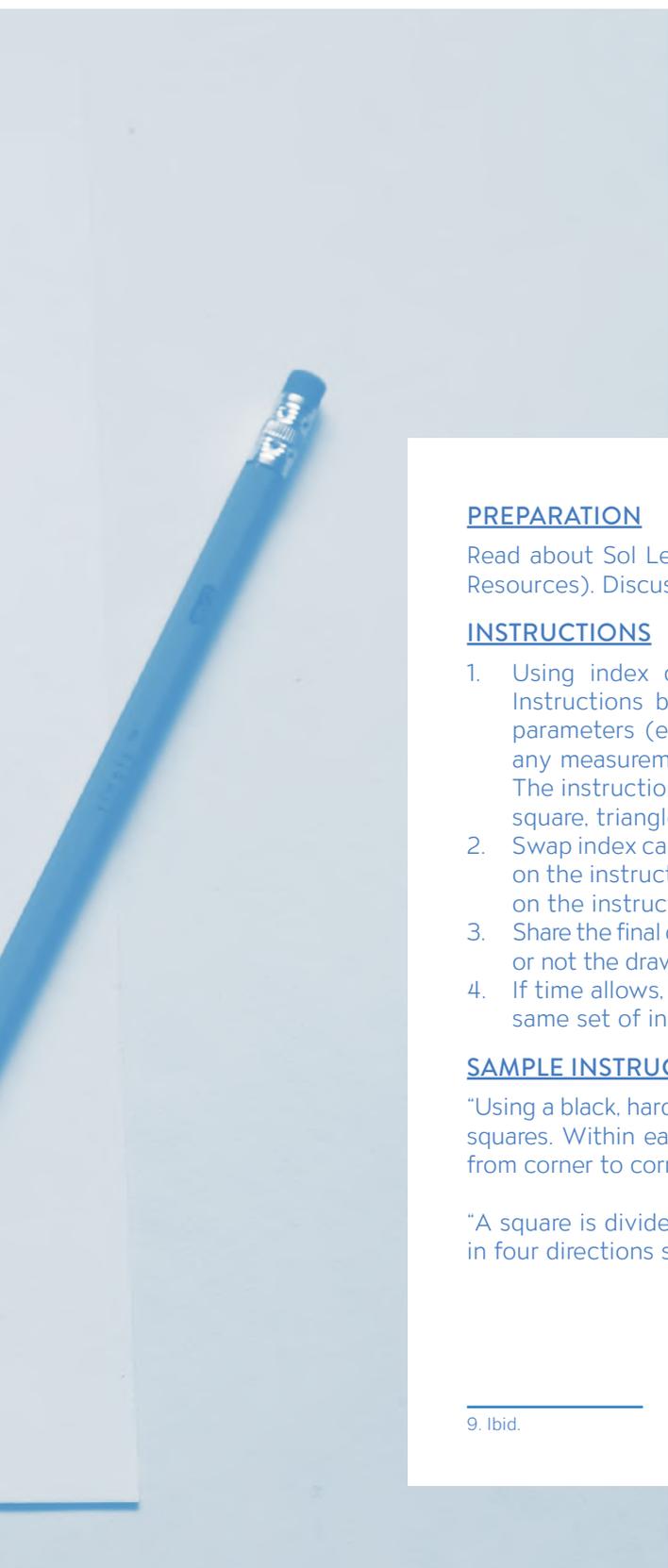
Pencils, pencil crayons, pencil sharpener, white drawing paper, rulers, protractors and index cards.

8. MASS MoCA. “Sol LeWitt: A Wall Drawing Retrospective.” accessed in January 2017. <http://massmoca.org/sol-lewitt/>.



Instructions for a line drawing:

- a 4 inch square
- 1/2 consisting of vertical lines only
- other half divided equally with vertical and horizontal lines
- all lines 0.5 cm wide
- alternate between solid & unfilled lines



### PREPARATION

Read about Sol LeWitt and look at examples of his wall drawing instructions (see Resources). Discuss his practice as a group.

### INSTRUCTIONS

1. Using index cards and pencils, write a series of instructions (see Sample Instructions below) for the creation of a drawing. It might be useful to set parameters (e.g., the drawing material must either be pencil or pencil crayon, any measurements cannot exceed a certain number of centimetres and so on). The instructions should be based on the creation of geometric forms (the circle, square, triangle and/or rectangle) and not organic or representational shapes.
2. Swap index cards with another participant and create drawings individually based on the instruction. Use white drawing paper, pencil or pencil crayons (depending on the instruction), rulers and protractors to aid.
3. Share the final drawing with the person who wrote the instructions. Discuss whether or not the drawing turned out the way the other person had envisioned it.
4. If time allows, trade index cards again. Compare multiple drawings based on the same set of instructions. Allow time for discussion.

### SAMPLE INSTRUCTIONS BY SOL LEWITT

“Using a black, hard crayon draw a twenty inch square. Divide this square into one inch squares. Within each one inch square, draw nothing, or draw a diagonal straight line from corner to corner or two crossing straight lines diagonally from corner to corner.”

“A square is divided horizontally and vertically into four equal parts, each with lines in four directions superimposed progressively.”<sup>9</sup>

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9. Ibid.

## VARIATION

Follow original instructions – rather than having participants write the instructions for their peers, use one of Sol LeWitt's original instructions and create one of his wall drawings collaboratively as a group. Use a whiteboard, or roll of craft paper taped to a flat wall for the surface. Use pencils and metre sticks as the drawing instruments. Scale down the units of measurement if space is an issue.

## DISCUSSION QUESTIONS

*Is the artist the person who wrote the instructions or the person who executed the drawing?*

*After discussing the question above, read the following quote by Sol LeWitt. Does his statement sway anyone's original opinion in any way?*

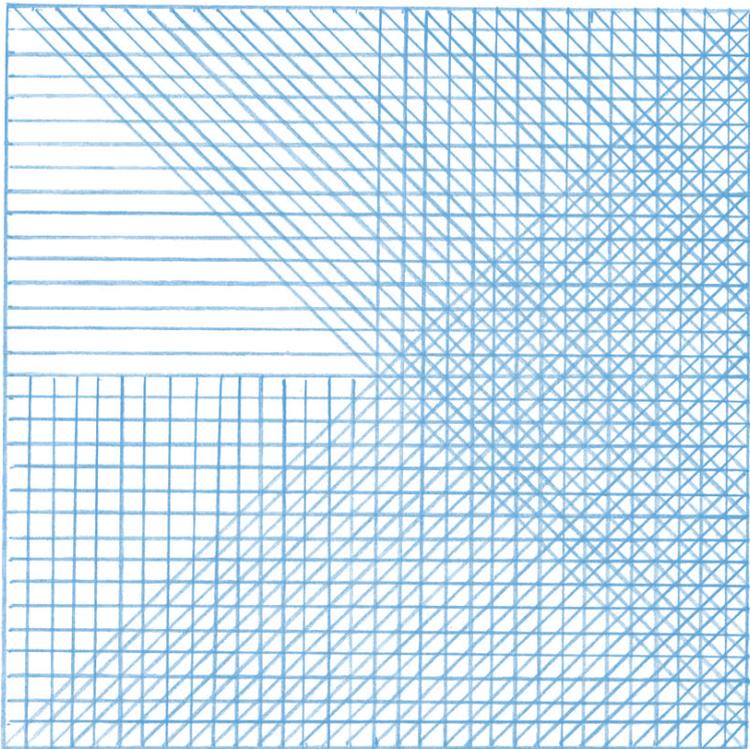
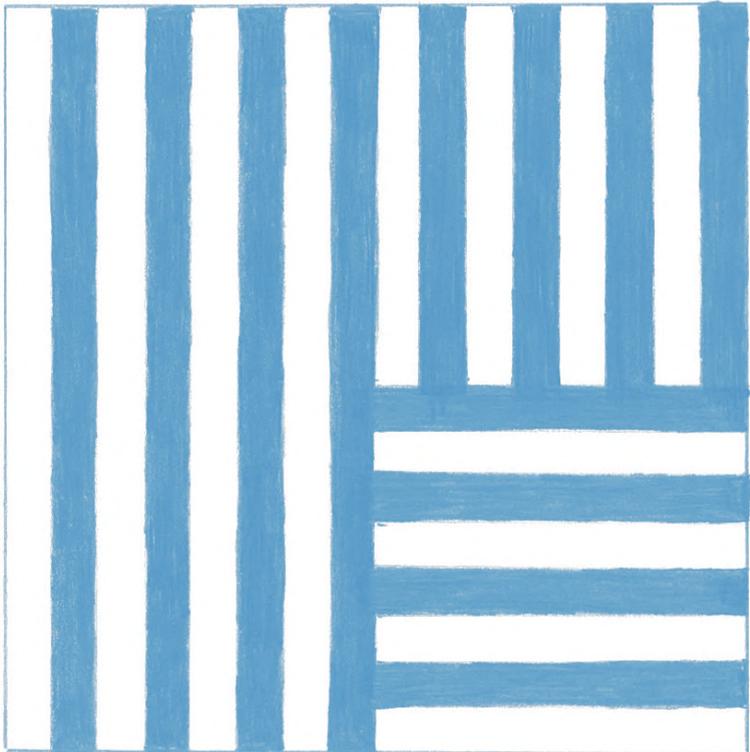
*"What the work of art looks like isn't too important. It has to look like something if it has physical form. No matter what form it may finally have it must begin with an idea. It is the process of conception and realization with which the artist is concerned."<sup>10</sup>*

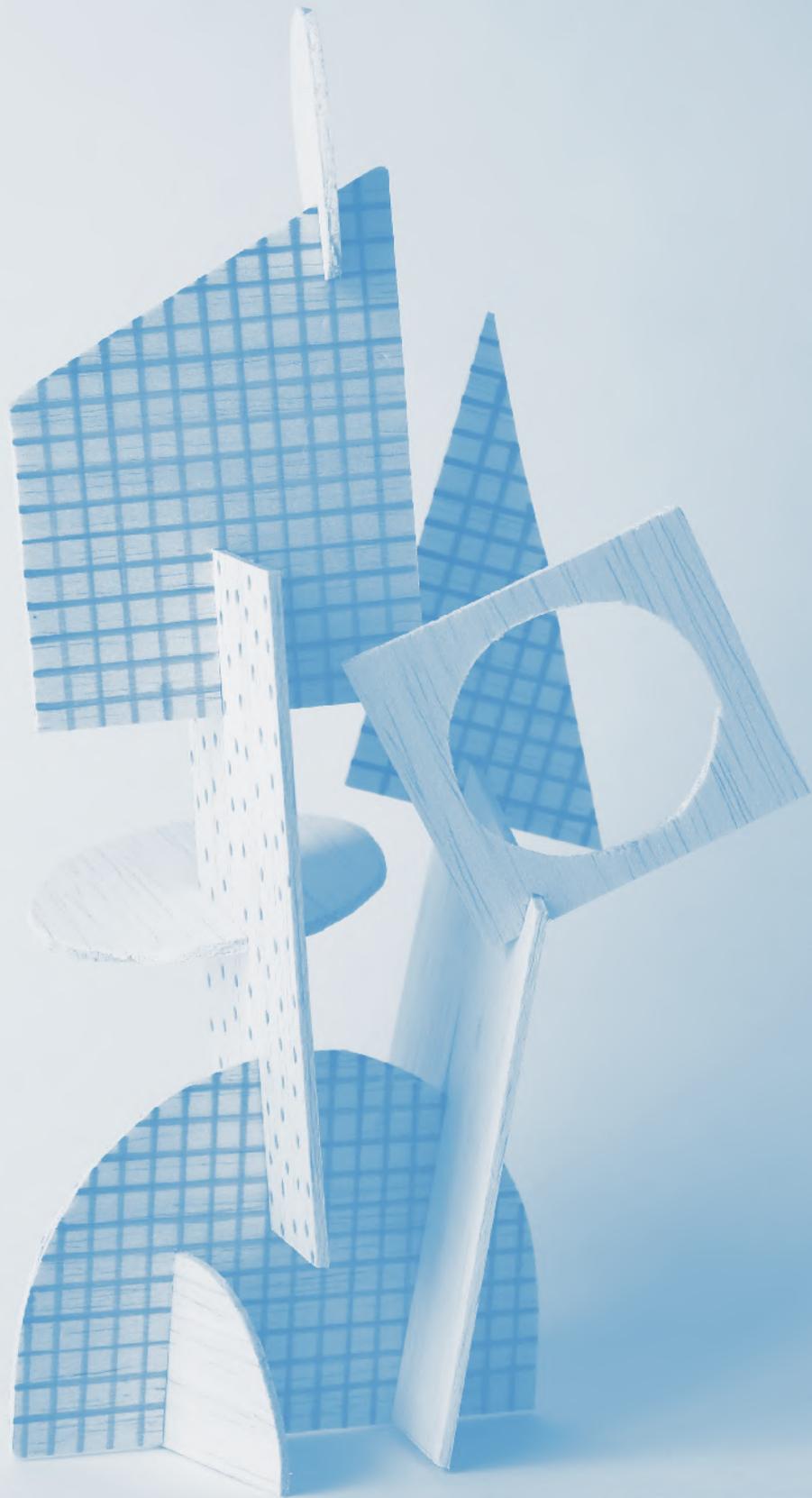
*Are the completed drawings an accurate representation of the instructions? Do they vary? If there are variations, does it matter? Does it affect the authorship of the drawing?*

*In what way does the grid manifest itself in this exercise? Would a similar process be possible without it? If so, how do you imagine that process unfolding? Would it be more or less difficult?*

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<sup>10</sup> Sol LeWitt quoted in The Art Story; Modern Art Insight. "Sol LeWitt: American Conceptual Artist and Painter," accessed in January 2017. <http://www.theartstory.org/artist-lewitt-sol.htm>.





### PERMUTATIONS ON A MODERNIST SCULPTURE

The focus on pure form (the circle, square and triangle) that became so dominant in painting during the mid-20th century, translated into sculptural practices as well. Minimalist artists (such as Tony Smith, Donald Judd and Richard Serra) in particular wanted to break down traditional concepts of sculpture and create simple, often geometric forms that placed an emphasis on the physical space they occupied. Many of these sculptures were created on a human scale and used industrial materials.

In this activity, participants will look closely at Charles Boyce's drawings and create preliminary sketches inspired by pure forms. The finished project will be a unique, freestanding, abstract sculpture created using balsa wood. Participants can decide if they would like to leave the materials raw, as the Minimalists did, or paint their sculptures using the bold colour relationships favoured by Color Field and Op Art artists.

### MATERIALS

Grid paper, pencils, pencil crayons, scissors, balsa wood, utility knives, markers, paint, rulers and protractors.

## PREPARATION

Look at Charles Boyce's drawings from his *Permutations on a Five Sided Circle* series and read his biography and the description of his work on page 14.

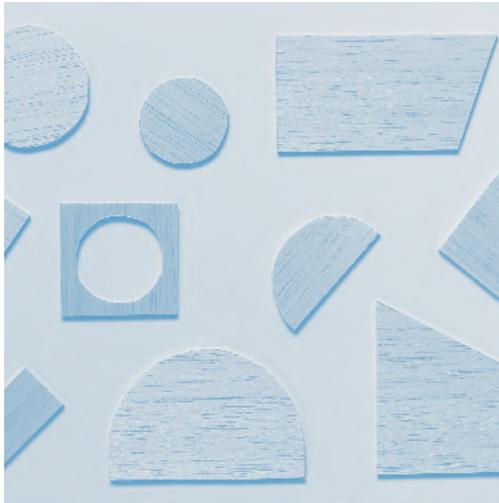
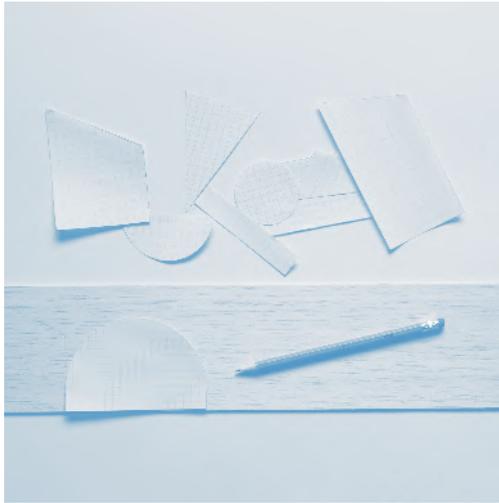
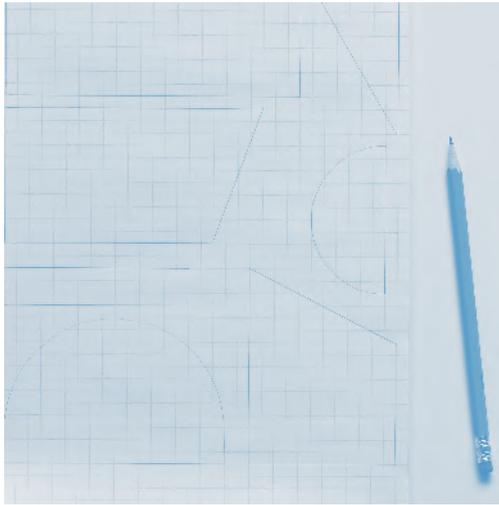
*Ask: how can grid paper aid artists in creating their work? What other tools and materials do you think Boyce might have used to create his drawings? What are preliminary drawings? Do Boyce's drawings look like they might be preliminary drawings for a larger art piece? Why or why not? How can preliminary drawings help sculptors?*

Now, look at all the artwork in the exhibition.

*Ask: what are the predominant colours that are being used? Are they bold, bright colours or are they dull and muted? Do the majority of colours appear solid or as gradients (that fluctuate in tone)? Are there similar shapes that you can find in multiple artworks? If so, can you name them? What is a pure form?*

## INSTRUCTIONS

1. Using 2 to 3 sheets of grid paper, pencils, rulers and protractors draw 10 to 12 shapes that vary in size. Each shape should closely resemble a circle, square (or rectangle) and/or triangle. At least one shape should be relatively large and include a flat side (this will serve as the base piece in step 6).
2. Once the overall shapes have been established, use pencil crayon to plan the colour scheme. The colour scheme can be monochromatic; it can consist of a limited colour palette (2 to 3 colours); and it can include a combination of solid colours along with stripes and/or grid patterns.
3. Next, cut out the shapes from the preliminary drawings. These will be used as a stencil to trace the shape on the balsa wood.
4. Cut the shapes out of the balsa wood carefully using a utility knife.
5. Use the markers and/or paint to colour the balsa wood pieces following the colour scheme from step 2. Allow the paint to dry completely before continuing to step 6.
6. The final step is to assemble the sculpture. Start with a large piece that has at least one flat edge (mentioned in step 1) to serve as the base. Next, arrange the remaining shapes intuitively; the goal is to achieve balance in the sculpture (it should stand upright on its own). To fit the shapes together as you assemble, use the utility knife to cut small slits into one of the shapes so that it slides snug over the other shape.





### VARIATION

Corrugated cardboard version – use thin sheets of corrugated cardboard instead of balsa wood and scissors instead of utility knives to cut out the shapes and slits.

### DISCUSSION QUESTIONS

*When you were creating the preliminary drawings, did you have an idea of what the completed sculpture would look like? If so, did your original plan change over time?*

*If you were to assign a title to your sculpture, what would it be?*

*Was it challenging to arrange the shapes so they would balance?*

*Is there an angle that you prefer when looking at your sculpture? If so, why do you prefer it?*

*Do any of these sculptures remind you of public art pieces that you've encountered? If you could recreate this sculpture on a much larger scale and put it outside in your city or town, where would you place it?*



### DRAWING ON THE GRID

Before the grid became a subject in and of itself in modern art, it was used for centuries as a tool to help artists create realistic representational imagery. In the Renaissance, for example, the artist and architect, Leon Battista Alberti, suggested that a gridded frame (called a “veil”) be used to aid in the execution of drawings. The veil would be carefully placed between the artist and his or her subject and would effectively dissect what was in front of them into smaller squares. Using a gridded paper, they would carefully transcribe what they saw through the *veil* using the corresponding individual squares to guide them. Alberti insisted that this was not a form of cheating artistically, but rather, a useful tool.

In this lesson plan, participants will use the grid method as a tool to execute a drawing. The size of the grid and the complexity of the drawing can be altered to suit the appropriate age level. The subject of the drawings can be the artist’s choice or can connect with a subject being studied in the classroom.

### MATERIALS

Source photograph (printed on 8.5 x 11-inch copy paper), rulers, pencils, erasers, drawing paper and drawing or painting material of choice (e.g., pencil, pencil crayon, pastel, marker, acrylic paint, watercolour and so on).

## PREPARATION

Print out source images full-size on 8.5 x 11-inch copy paper. The subject matter of the images can relate to the artwork presented in *On the Grid*, it can connect to another relevant subject being studied in the classroom, or it can be a subject of personal interest (artist's choice). Adjust the difficulty level of the image to suit the age of the participants.

## INSTRUCTIONS

1. Using a pencil and ruler, make small marks along the top, bottom and sides of the source photograph every 2 inches. Use a ruler to connect the marks in straight lines up and down and from side to side creating a 4 x 6-inch grid.
2. Measure the drawing paper. Divide the width of the sheet by 4 and use a ruler and pencil to create small marks along the top and bottom of the paper according to that unit. Repeat the same process for the height, but divide the total measurement by 5. For example, if the paper is 16 x 24 inches, participants will make a mark every 4 inches along the top, bottom and sides of the page. Try to draw the grid as lightly as possible so that the graphite can be erased later on.
3. Use the grid on the drawing paper as a guide when rendering the source image. Do not worry about small detail right away, concentrate on the outlines that surround the objects and/or forms in the composition.
4. Once the outline has been established, participants will use the drawing or painting material of their choice to complete the image. Erase any unwanted grid lines.

## DISCUSSION QUESTIONS

*Did you find the process of using a grid helpful when you created your image? Why or why not?*

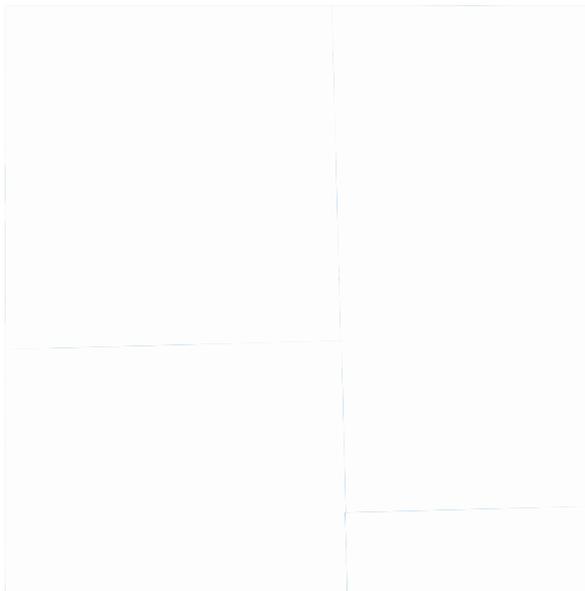
*Why do you think this practice was popular for artists during the Renaissance? What new tools and/or technologies could artists use today to transfer images?*

*Math is not a skill that's commonly associated with visual artists. Why do you think that is? Can you think of other occupations or daily tasks that might require the application of math in unexpected ways?*

## VARIATIONS

Change the scale of the grid – depending on the difficulty of the source image, change the scale of the grid. Smaller squares can be helpful when drawing a more detailed image.

Build your own veils – following the method described by Leon Battista Alberti, have participants build their own version of the Renaissance period tool and use it to draw three-dimensional objects (e.g., a still life, landscape, person and so on).



Color Field – abstract painting in which colour is emphasized and form and surface are correspondingly de-emphasized.

Conceptual art – an art form in which the artist's intent is to convey a concept rather than to create an art object.

Minimalism – a style or technique (as in music, literature or design) that is characterized by extreme sparseness and simplicity.

Gesso – Plaster of Paris or gypsum prepared with glue for use in painting or making bas-reliefs.

Grid – a network of uniformly spaced horizontal and perpendicular lines.

Gridiron – something consisting of or covered with a network.

Perspective – representation in a drawing or painting of parallel lines as converging in order to give the illusion of depth and distance.

Permutations – often major or fundamental change (as in character or condition) based primarily on rearrangement of existent elements.

Picture plane – the surface of a picture drawn in linear perspective regarded as a transparent plane perpendicular to the lines of sight on which the points of objects in the scene may be considered as projected by straight lines drawn from these points to the eye.

Pure form – in art, shapes that consist of circles, squares and triangles.

Module – any in a series of standardized units for use together.

Op Art – nonobjective art characterized by the use of straight or curved lines or geometric patterns often for an illusory effect (as of motion).

Rhythm – movement, fluctuation or variation marked by the regular recurrence or natural flow of related elements.

Silk-screening – a stencil process in which colouring matter is forced onto the material to be printed through the meshes of a silk or organdy screen so prepared as to have pervious printing areas and impervious nonprinting areas.





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Cover – Charles Boyce, *Permutations of a Seven Sided Circle* (detail), 1984. Pencil, plastic on paper, 81 x 81.3 cm. Collection of the Alberta Foundation for the Arts.  
 Page 5., 6., – Bill McCarroll, *Slant I* (detail), 1980. Graphite, acrylic on paper, 55 x 71 cm. Collection of the Alberta Foundation for the Arts.  
 Page 7., 8., – Christian Grandjean, *Calgary #1* (detail), 2008. Inkjet photograph on paper, 43 x 56 cm. Collection of the Alberta Foundation for the Arts.  
 Page 9., 10., – Helen Archer, *Structure Series* (detail), 1976. Silk screen on paper, 51 x 56.4 cm. Collection of the Alberta Foundation for the Arts.  
 Page 27., 28., – Harry Kiyooka, *Sky Scape* (detail), n.d. Silk screen on paper, 65 x 77.5 cm. Collection of the Alberta Foundation for the Arts.  
 Page 35., 36., – Sol LeWitt, Installation photograph of *Wall Drawing #16* (detail), 1969. Black pencil, dimensions variable. Collection of MASS MoCA.  
 Page 51., 52., – Christian Grandjean, *Calgary #4* (detail), 2008. Inkjet photograph on paper, 43 x 56 cm. Collection of the Alberta Foundation for the Arts.





