The Ideal of Form

Summer Sun

Senior snow Collection

"I wish to approach truth as closely as is possible, and therefore I abstract everything until I arrive at the fundamental quality of objects." — Piet Mondrian

Table of Content

The Ideal of forms

Artist's Statement 16

Cube in a Pole 20

Cube and Square 24

Frame 28

Frame2 32

Black and Blue 36

Cube Lamp 46

The ideal of geometric forms

A perfect circle, square, rectangle, triangle or straight line, they don't exist in the natural world. We may have a tree ring that is close to a perfect circle, but it can never be a perfect circle. Those basic geometric shapes are from the natural world but they don't exist there. They are the abstractions of the natural world.

Plato started a concept of "the world of ideals". He believed that everything that exists in the material world has an eternal and immutable pattern. It is not tangible, but by observing the material world, we will get an idea of what it is. Like horses, every horse is different, but they are all the same in a different perspective view that they all have common features that let them be recognized as horses. It is like casting cookies in a mold. All the cookies come out from that mold are all the same in general, meanwhile they are all different in many small details. Plato believes horses also have a mode for them, which is "the perfect horse", also for human, for chickens and everything else. Every horse has their different flaw. Also they will get sick, grow old and die. Everything in the natural world flows, but the mold is always there. It is the eternal and immutable reality that behind the natural world, which is named by Plato "the world of ideals".

However, although we have a sense of what the "perfect horse" or the "mold" of horse is, the image is very spiritual and abstract. Geometry is different. We clearly know what a perfect circle, a perfect square, a perfect equilateral triangle or a straight line is and what they look like. Those things don't exist in the natural world, they also belong to "The

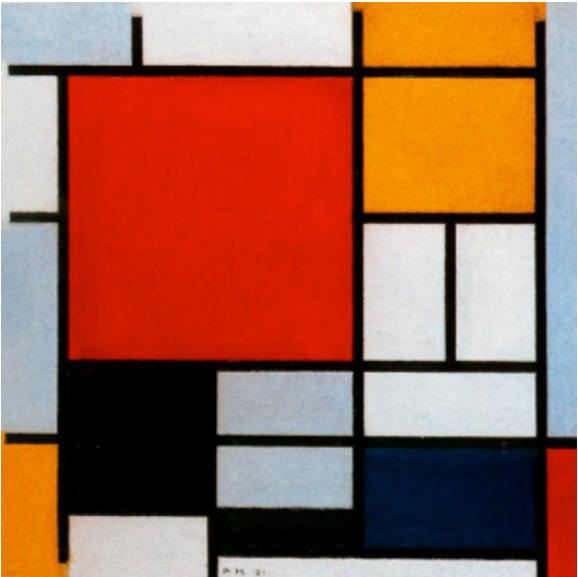


Figure 1

world of ideals". Designers can use them as the elements of design to reach a utopian feeling. If the philosophers' role is to seek the eternal and immutable reality, a designer's job is exploring eternal and immutable beauty.

Geometry is one of the basic languages of visual art. From lines which can vary in width, length, curvature, color, or direction, planes/shapes to forms/space, design is the arrangement of those elements to create a sense of equilibrium and harmony. Using mathematics and geometry to create art and design can be traced back to the ancient world. Artists applied geometry to plan the composition of paintings; like the use of golden ratio in the painting "Mona Lisa" by Leonardo da Vinci. However using geometry as a tool for design is different from actually showing pure geometric form in designs. The former is a common method of design; the latter is an approach that has only happened in the last one hundred years lead by minimalism and the geometric abstraction movements.

De Stijl is part of the geometric movement. It is a style based on an abstract, reduced aesthetic. De Stijl artist understood the power of basic geometric forms and their utopian associations. They created "a visual language consisting of precisely rendered geometric forms - usually straight lines, squares, and rectangles," and "this austere language was meant to reveal the laws governing the harmony of the world." (De Stijl)

Piet Mondrian is one of the founder of De Stijl. He radically reduced his painting into the most basic geometric forms in primary colors and is best known for his pure abstract painting. He believed those extremely simplified forms reflect a universal aesthetic language revealing the "underlying spirituality of nature". Figure 1 is one of Mondrian's most recognizable painting "Composition with Large Red Plane, Yellow, Black, Gray, and



Figure 2 Figure 3

Blue", in which he only used black and thick horizontal and vertical lines, rendered precisely to construct rectangles in grey, white and primary color. For him, the horizontal and vertical lines mean "two essential opposing forces: the positive and the negative, the dynamic and the static, the masculine and the feminine." (Piet Mondrian) By arranging them with primary colors, Mondrian created a balance among those forces. In all of his later paintings, Mondrian applied an asymmetric composition. In this one, red is the dominate color that filled in the biggest square. Red is a very strong color, but Mondrian distributed its power by the arrangement of those small yellow, grey and black block around it. Moreover, this tension and balance that formed by the varied size and color of rectangles, squares and lines reflected the dynamic rhythm of modern life.

Although, the De Stijl movement was led by two painters Theo van Doesburg and Piet Mondrian, it was not limited to the 2-dimentional art world. It also had a big influences on sculpture, industrial design and architecture. They adopted pure forms made out of straight lines and basic geometric shapes and played with the balance among lines, shapes and primary colors in asymmetric compositions. Two tables in Figure 2 and Figure 3, designed by Irish designer Eileen Gray, are in accordance with the De Stijl aesthetic. Her designs were always very clean and simple with restricted color choices. Black and white are the two most common colors in her design. She used polished metal tubing to form clean lines, creating basic structures supporting rectangular and square panels or solid figures. Although, Gray is not recognized strictly as a De Stijl designer, she shared their aesthetic values. She had a good relationship with the De Stijl Group in Netherland. In 1922, Gray was invited by them to Netherlands. Shortly after her return, she designed



Figure 4



a multi lever side table named De Stijl(Fig 2). This piece completely follows the principles of Mondrian's paintings. It only uses black and white color. Basic geometric shapes are rendered precisely with straight lines on the edge. It feels like that the table just jumped out from his paintings. This table became her favorite piece and stayed in her living room for the rest of her lifetime. The dressing table in Figure 3 called "Petite Coiffeusemore", is close to Gray's own style, but in my opinion, it is an evolved version of "De Stijl". "De Stijl" still retains a two dimension painting quality while "Petite Coiffeusemore" lives in the three dimensional world. It has more volume and dynamics in space: lines are still straight in horizontal and vertical direction, but they start travel in space; the rectangle shift into a cuboid. Also, the use of varied materials enhance the modern sense.

I adore minimalism in the design world for it reduces everything to the most basic and simple geometric forms and leaves a lot of blank space. Every detail that serves a function is replaced or hidden to preserve the pure geometric form. Donald Judd, an American artist and designer, was one of the most representative figures in the minimalist movement. Judd created work with repeated simple geometric forms as a way to avoid self-expression in the artwork. He also used highly finished, industrialized and machine made materials to get rid of all "artists' signatures" on the work and reach an impersonal and factory produced feeling. He was aiming to make sculptures that stand on their own and "did not allude to anything beyond their own physical presence". This is his pursuing of the purity of art in another lever. Figure 4 is the sculpture "untitled", made by Judd in 1980. It is a huge piece that contains 10 rectangular boxes mounted on the wall. Each box is equally spaced from its neighbor. Judd used royal blue acrylic on the front side of the







Figure 7

boxes and dulled steel on all other sides. The whole piece is a clean, simple and symmetrical composition, and retains the purity and neutral feeling of forms. Repetition of boxes is the form of almost all of Judd's sculpture.

In 1984, Judd entered the furniture design world by working with a Swiss company. He introduced his aesthetic of drastic simplicity to the furniture sector, as well as "the box". Figure 5 is a chair series that Judd created in 1986. They are all made out of straight pine boards with a boxy look.

David Smith is another well-known American sculptor of the 20th century who choose geometry as a lifelong interest. He is also a follower of geometric abstraction and brought it into the sculpture world. He looked to Mondrian's painting, took "his geometric forms, his use of primary colors along with black and white, and his impulse toward both literal and metaphorical purity as a source." (Eliel) His work had a big influence on minimalism as well. In his work, cubes, circles, cylinders and rectangles are constructed of bold metal structures. Smith has his own understanding of the meaning of geometric forms. He believes that art all comes from the reality of everyday life of the common man. His sculptures are all very abstract with pure basic geometric forms. However, from his sketchbook (Fig 6), it can be seen clearly that in the original sketches, he uses basic geometric shapes to create figures. Using pure geometric shapes to compose the idealized human figure is a way that Smith built links between geometry and the utopian world.it can be seen clearly that in the original sketches, he uses basic geometric shapes to create figures. Using pure geometric shapes to compose the idealized human figure is a way that Smith built links between geometry and the utopian world.



Figure 8

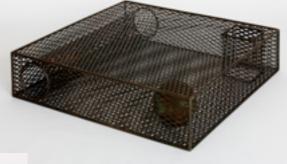
Smith's father was an engineer and his grandfather was a blacksmith. He also worked in a metal factory when he was young. With this background, Smith saw himself as just one member of the working class. His inspirations for his sculptor largely come from the factory environment. He also introduced the craftsmanship he learned as a metal fabricator, like welding and milling, into making sculptures. Figure 7 is one of the sculptures from Smith's cubi series, called "Cubi V". It is entirely composed of steel boxes with burnished surfaces, but Smith's goal to achieve from these basic geometric form's is different from Judd's. Judd desired a pure abstract feeling and for the artwork to stand by itself without the touch of the artist. Smith fabricated these boxes himself, the sanding marks can be clearly seen on the steel surface. Moreover, his work is meant to be representative, as show in his sketchbook. Smith's cubi series represent either heroic figures or architecture. In Cubi V, Smith said, "it's a lyrical, playful balancing act—one that echoes the joyful motion of the human body."

Pure geometric form also plays an increasingly important role in today's world. Lee Boom, one of the leading product/interior designers in UK, designs products with pure geometric forms that shift a little in a delicate way. Like the mirror and lamp in Figure 8, They are both describing a simple circle/sphere and one part of it has been staggered a little from the other part. The subtlety creates a sense of elegance that highlights the purity of the simple geometries more. Designer Faye Toogood uses basic geometric forms in her design, too. She feels her work is "a reaction against the convoluted, futuristic and biomorphic shapes explored by a number of designers in the 1990s." She is interested in experimenting with different materials and in using geometric shape to express that. She



Figure 9

Figure 10



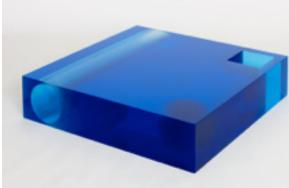


Figure 11

says that "by changing the material or combining one shape with another I am able to create entirely different compositions. I think the simple geometric shape is innocent in some way, untouched and almost naive". (Dalton) Figure 9, 10 and 11 are Toogood's "element table. A big box has been intersected by a cube, a hemisphere and a cylinder. Toogood has created this same form with different materials, steel sheet, steel mesh and resin. Each of them is occupying the space in a different way which tells a different story. Steel sheet feels solid and heavy. Resin is light and translucent. The steel mesh is more like a cage and has a more complex and playful feeling to it. Toogood's pieces prove again that even with one simple form, there are a lot of things to explore.

Pure geometric forms imply perfection, purity and eternity. They are the ultimate in pure abstraction, but also have a mysterious allure. Different qualities of lines, surface and 3D form, combined with different materials and finishing, build interesting tensions. Pure geometry allows designer to play with contrast: light and heavy, opaque, translucent and transparent, solid and negative space...etc. With the development of technology, more and more techniques and material choice are being explored. This will lead us to a new possibilities of subtlety, purity and complexity in the design of pure geometric forms.

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14

Artist Statement

I studied Furniture design as my second degree at California College of the Arts. After finishing my first degree in China in Engineer Management, I left everything behind, came to US to start over in this new area, where my passion lies. Furniture, for me, is the best blend of my two favorite fields, design and visual art. I express myself both in the design and the working process and enjoy playing with the balance between function and aesthetic. It is a way for me to explore my inner-self. Each of my artworks has its own story, showing different aspects of my personality. I feel they can speak for me better than myself can do.

Traditional furniture is treated as a dead object. People use it, but they don't see it. I see my furniture as sculpture which refresh the mind and create emotional connections. I create a sense of paradox and mystery in my furniture so that people will not take their existence for granted. These objects will live in people's homes as art pieces with a distinctive identity and personality and also serve as functional objects.

For me, a designer's job is to explore eternal and immutable beauty, which is why pure geometric form is the most important theme in my design. A perfect circle, square, rectangle, triangle or straight line, these basic geometric shapes they are from the natural world but they don't exist there – they are the abstractions of the natural world. I reduce everything to basic and simple geometric forms and leave a lot of blank space. Only lines,

planes, basic forms and a large amount of space are left in a room, which creates a world of purity and perfection. Moreover, lines, faces and forms occupy space differently and their interactions with each other in space create tensions and dynamics.

Absence is another key component in my work. I appreciate the negative space as much as the form itself. I explore different materials, combinations and arrangements in my design, which create different feelings interacting with the environment around them. They are extremely simple, but within this simplicity lies a whole diverse universe.





Cube in a Pole



Cube and Square







Frame





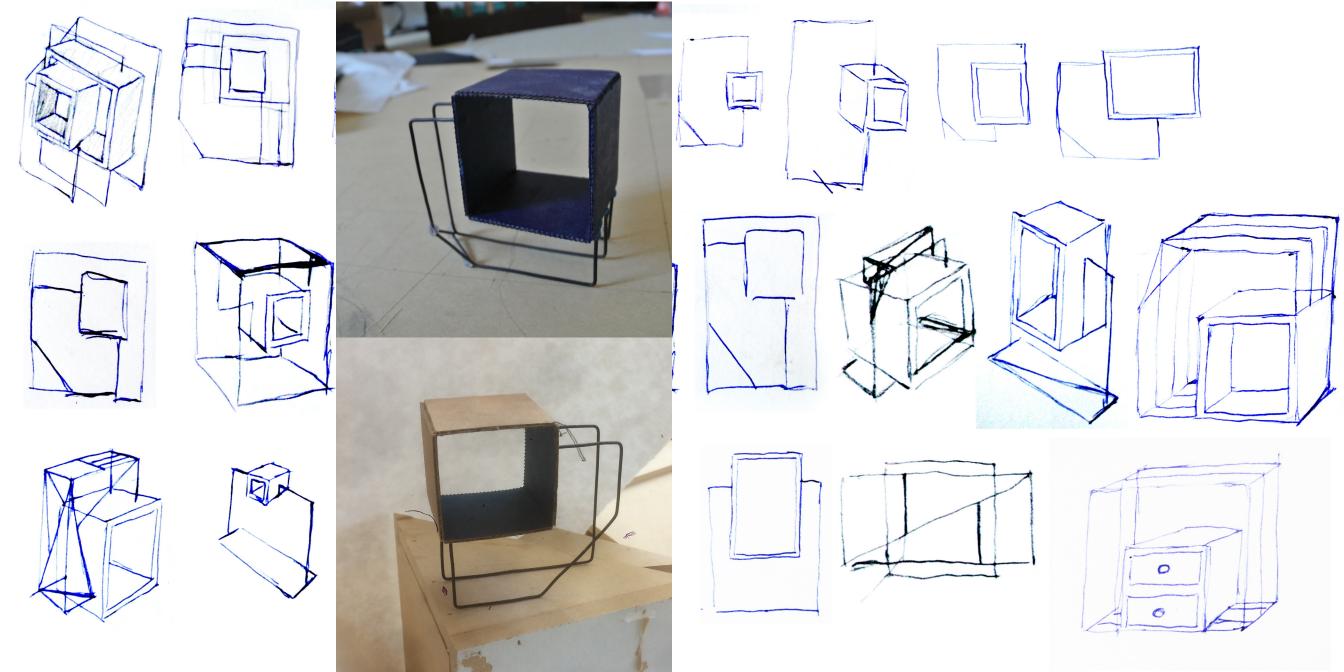
Frame2

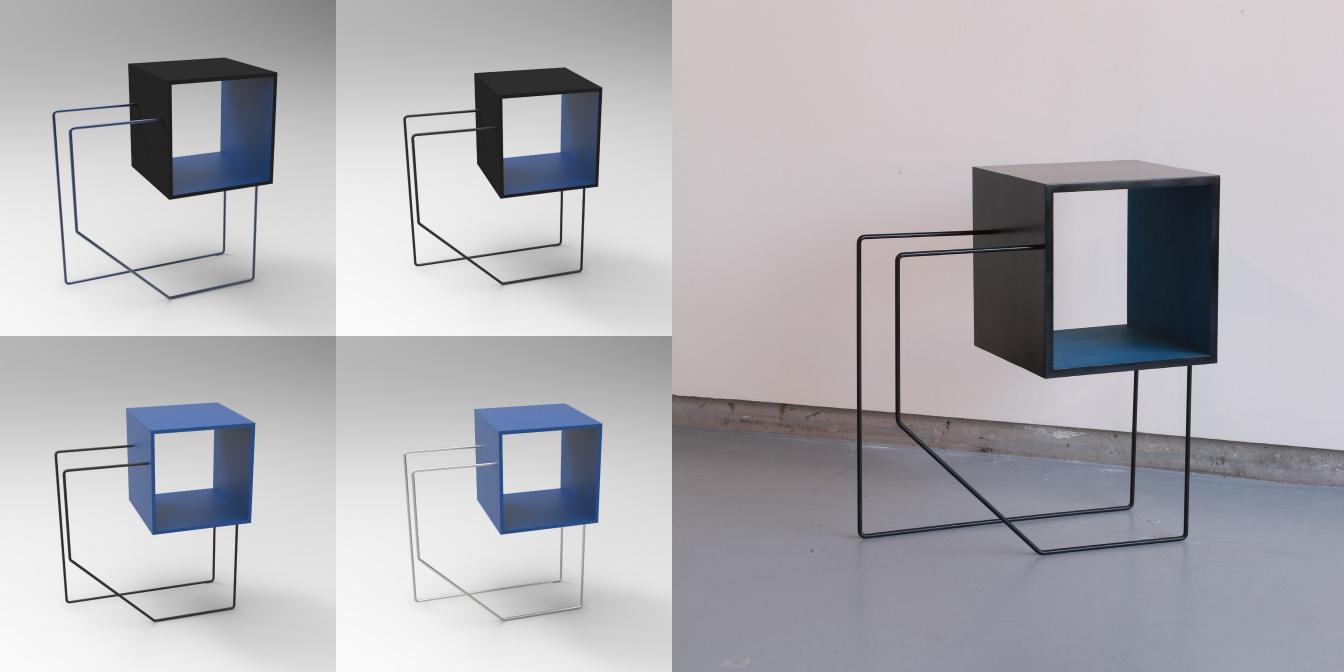




Royal Blue









Cube Lamp Series



46

