MARY KIM, Sculpture/Half-Sculpture: Sculpture in Autopoiesis

Shinyoung Chung

Assistant Professor, Seoul Woman's University

When one first encounters Kim's works, the vibrant colors first catch the eye, and the geometric shapes seem unreal, as if they are a vocabulary of mathematical coordinates somewhere other than the real world, triggering a subtle curiosity. Kim's puzzle-like works, which are clearly present in front of us but operate on otherworldly principles, provoke a sense of impatience and make us wonder about their structural principles: how did these shapes come about, how were they made, what are their materials, etc. Like the poignant and elegant puzzles that provoke us upon entering the exhibition, Kim's works are meaningful pieces that stimulate the viewer's eyes and mind.

When it comes to formal puzzles, IQ tests often ask you to look at a series of shapes that change in a certain pattern and choose the next shape that continues the pattern coherently. In this type of test, you have to figure out what rules the presented shapes follow as they move from one to the next. These rules, which are clearly present but not readily apparent, become the internal logic that controls the system of continuous change on the one hand, and allows it to generate endlessly on the other. Kim's works, for the most part, are also created and controlled by a single internalized rule.

Like solving a puzzle, further observation reveals that within each seemingly complex work, there are minimal basic units, or "modules" as the artist calls them. These modules are repeatedly used in a single work in a unified form, and the way they are combined is not improvised, but predetermined by the artist and is repeated with certainty. If the minimum number of units repeated within a particular system and the way they are combined are determined, the system, with its regularity, continuity, and repetition, has only physical limits and is theoretically endlessly expandable. Therefore, each of Kim's works appears to be complete, but we realize that it is only a slice of the universe, a fragment of a structure that is constantly expanding beyond the visible, like a giant chemical formula or the calculations of an expanding universe. With Kim's unique worldview, each of her works has the potential for infinite multiplication.

American minimalist sculpture of the '60s and '70s, such as that of Sol LeWitt and Carl Andre, was also based on the principled repetitive stacking or unfolding of coherent modules. Emerging in the chaotic period immediately after Abstract Expressionism and Pop swept through American art, they used mass-produced building materials as their basic modules, such as square sheets of steel or straight beams, the simplest and most understated units, and stacked them into pyramids or laid them on the ground. Their works, often as dry as jungle gyms or stacked boxes, were, as is the fate of much cutting-edge

art, dismissed by the public as meaningless or incomprehensible. What distinguishes Kim's work from the minimalist sculptures of half a century ago is that, unlike factory-formed steel plates and beams, the modules she uses have inherent structural variables that allow for infinite variations. It would be more accurate to say that the possibility of change is built into the modules, or rather, the mathematical possibilities for creating change are already designed into the modules when Kim sets them up. These simple, angled wooden modules that look like a sophisticated house are a combination of mathematical principles, including Euclidean geometry, the author's training as an architect and her extraordinary imagination in applying them, and above all, the relentless pursuit of trial and error, which has been developing for 20 years. It would not be an exaggeration to say that it is a patented product of years of research.

To elaborate a bit on this module, Kim says that the most basic module structure is a wooden bar angled at 60 degrees. The top and bottom of this pointed prism is an elongated rhombus, and the two cabinets of the rhombus are 120 and 60 degrees, respectively. If I had to make a comparison, I would say it's closest to the shape of the Leaning Tower of Pisa, which is also angled and tilted. The proportions of the module are based on a 1:6 ratio between the length of one side of the base and the length of the columns that go up diagonally. The actual dimensions are 21.5 mm: 129 mm in the basic form. The module is not monolithic, but varies according to several rules: the aspect ratio can change from 1:6 to 1:1, 1:3, 1:4, or 1:8, or the angle of the columns can change from 60 degrees to 45 degrees to 75 degrees, and the physical size of the module can change while maintaining these conditions. The module remains the same, but the shape can be varied in an exponentially increasing number of cases, combining the variation possibilities of proportion, tilt, and size.

As a further note, the way the modules are joined to each other is also implemented according to a predefined principle. In the case of the basic module, the connections to other modules are either the top or the bottom of each column, or the cross-section of the rhombus, which is set at a slope of 60 degrees instead of 90 degrees, so that there are two possible connections depending on the slope of the columns when they are butted up against each other. Since there are top and bottom faces, there are a total of four patterns in which separate modules can be connected above and below a single module. If it were 90 degrees, there would be only one possible way to connect the two modules, which would be to simply put them together in a straight line. There are also a few more ways to connect the rhombus to the longitudinal sides of the module, rather than having the sections of the rhombus connect to each other. It's worth remembering that within a piece, this connection is just as consistent as the modules, and applies equally to the contacts between all modules without deviating from the same principle. Like a math operation, it's a uniform operation on all terms.

"Odradek Tower" (2023), which was exhibited at Sueño339 in 2023, uses the most basic modules with a proportion of 1:6 and a 60-degree inclination, but the length of a single module is 263.2 millimeters, making it a large-scale work. A total of four modules are connected up and down, alternating between

two ways of connecting rhombuses, and this becomes the recurring core structure of the work. The elongated core structure is flanked by one additional module on each side of the top and bottom modules, creating a horizontal link that also extends sideways. Repeating this method up and down several times creates the current "Odradek Tower," a three-dimensional net-like structure. If we analyze the smaller work "Tower of Vertical Units" (2023), which was also exhibited in the same exhibition, for comparison, it starts from the same 1:6, 60-degree base module as "Odradek Tower," but its size is reduced to 129mm, and the core structure connecting the four modules up and down is virtually the same as "Odradek Tower." However, in this case, the connections do not extend laterally, but only allow for the joining of the top and bottom rhombuses, resulting in a shape that resembles a twisted rope rather than an unfurled net. The two works are similar and different, like a family, and yet they have their own charms, coexisting with a sense of change and unity, like a musical theme with small variations.

Just like a fully three-dimensional piece like "Odradek Tower", a series of flat pieces called "Folds" are created using the same principle of using modules. For most Folds, the modules start at 1:1 and 60 degrees. When the 1:1 modules are glued together using the same principle, alternating rhombuses and joining the sides, a flat but slightly elevated relief-like form is created, which mimics the surface of a sheet of paper like a shadow or shell. Because they are "folded" like the title (Folds), they appear to be 2D but are shallow three-dimensional structures. In the case of "Folds_wave_BW01, 02" (2021) and its derivative "Folds_BT 02" (2022), the existence of modules is implied by the short, flattend colored planes laid at an angle of 60 degrees. The short colored planes traverse up, down, left, right, repeatedly connecting and disconnecting, showing a familial resemblance to the moderately mechanical and rhythmic tilts that the modular units of "Odradek Tower" produce by connecting up and down.

The works are so faithful to their own internal logic and surprisingly autonomous, like an organism, that it is no wonder that the artist likens some of the three-dimensional works to trees or the human body. Not only are the figures similar in shape, but there are also aspects of the tree trunk that grows on its own, spreading branches and taking root according to the design set by nature, and there are other aspects of the human body, which is built with odd symmetries and asymmetries, pulling and spreading limbs as needed to fulfill its functions. It's almost pitiful to think that we, as independent entities, are intuitively aware of our own limitations and fate, and are fulfilling a pre-established task of bonding and unbonding.

I speculate that it is in this context that the artist uses the concept of 'odradek' in some of her works. In Kafka's very short story, "The Cares of a family man" there is an entity called Odradek, a very specific and seemingly impossible contradictory being. In the story, it is referred to as 'it' and then 'he' and then compared to a 'child', like an old string curling up, but it is also a star-shaped failure and an object that you want to talk to, and it seems to be a worrisome object that is unknown and has an

ambiguous function, but leaves the open possibility of attachment. The abstract object, which is both an inanimate object and a living thing, which holds the structure of uncertainty and laughs as if it has no lungs, seems to be both an individual body and a social body, a politics and an experiment, like Deleuze's BwO (Body without Organs). BwO is close to Odradek in that it is an unfortunate metamorphosis that resists and antagonizes the organs and organicity of its own existence, but cannot escape, being sucked in and reactivated again because its exit is its entrance.

However, once you wake up from your post-structuralism reverie, there is no BwO-like tragedy in Kim's works. This is because her works are not only rational, but also have a very logical structure. Not just the etymological rationality of following logic, but also the rationality that the conditions are neither romantic nor pessimistic like Kafka or Deleuze, but moderately realistic and economical. If the minimalists showed a macho tendency to physically overwhelm the space and the viewers by using rough, large, and heavy materials such as construction materials like steel, lead, and concrete, Kim's works are relatively light and easy to handle without special equipment or facilities, despite the scale of the works and the impression of solidity.

The three-dimensional modules are mainly made of poplar wood, which is cut in a way that minimizes the loss of wood (even small leftover pieces have been used to create works such as "Odradek Cube 23" (2017)). The modules are connected by embedded magnets, optimized for reassembly, disassembly, and transportation. With the exception of some permanent installations, the modules are not glued or welded together in most cases, which allows the form to be fixed, but also benefits the maintenance of the work and dramatically improves the difficulty of transportation due to the inherent size and weight of sculpture. This may seem like an incidental issue, but Richard Serra, for example, made his Torqued Ellipses series out of giant Cor-ten steel plates specially fabricated by a shipyard, making the work limited in every aspect of scale, load, and transportation. Most of the exhibitions have been confined to the ground floor of a warehouse-sized space next to the harbor. Regardless of the success of the work, it has the weakness of being difficult to realize without unlimited capital investment.

Sera is an extreme example, but in the past, "sculpture" has focused on immutability and overwhelmingness, hence the use of durable marble, bronze, and, in the late 20th century, iron and concrete. In contrast, Kim's approach to materials is futuristic and progressive, as is her methodology. In addition to the three-dimensional works, the flat works in the 'Folds' series may appear to be made of hard plastic or acrylic, but they are actually made of polypropylene sheet, which has the great advantage of not requiring special equipment or adhesives to create the shapes, and can be folded, trimmed, or cut by the artist herself without difficulty. This modularity of the wood and polypropylene materials allows for assembly, partial restoration, and remaking in a way that is not only possible in everyday situations, but also in terms of transportation, in a miniaturized package that the artist has embraced in preparation for international exhibitions, including this one in Seoul (the artist lives in Munich). For the 21st century IKEA generation of viewers and collectors, all the parts are removable

and can be assembled. The simplification of raw materials also largely solves the problem of the irreplaceability of raw materials due to technological advancements in parts and techniques in the future, and conversely, allows for permanent display.

The artist's innovations in methodology and materials are in fact not limited to formalistic specificities, but are directly related to the essential aspects of the work. In any case, conventional notions of art - eternity, sublimity, originality, uniqueness, etc. It's time to question the validity of past discourses. From the abstract concept of 'art is long', it seems that a concrete type of production called 'artistic sustainability' may become the centerpiece of future works. The artist is still pursuing the pursuit of form that began in her architecture classes in the United States in the early 2000s. As long as there is a coherent logic and the process is allowed to diversify and evolve through variation, fabrication will continue. In this era of visual art chaos, where AI, NFTs, deepfakes, and art fairs obscure the essence, I see a possibility in Kim's principled process that combines intellect and grit. In her working notes, the artist mentions practicality, concrete functionality, and the hope for an autonomous structure. The autonomous structure seems to be already in place, and practicality and functionality will be achieved in the process of finding a congruence between the mathematical coordinates and the coordinates of reality, but for the time being, I would like to enigmatize the transformation of Kim's infinitely expanding innovative modules.