VARIATIONS ON THE PERFECT FORM

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During the organisation of the John McCracken exhibition focussing on his steel works, I visited the work Teton, in the Caldic Collection sculpture park close to The Hague. Teton is pillar-shaped, some 240 cm high, 70 by 40 cm wide, and has been permanently installed in the park since the middle of the nineties. While walking through the park, I passed art works by various other prominent artists – nearly all of them unified structures with very pronounced presence. Upon arriving in a more secluded wooded section, the park guide stopped suddenly and said, "And this is the McCracken". At first I saw nothing other than trees and bushes. All of a sudden it was clear to me that Teton was no more than three metres from where I was standing. The stainless steel work was situated in a small clearing between some trees – it might as well have been completely invisible. The reflective surface of the steel reflected the surrounding trees, ground, treetops and fracturing forest. It looked like a large broken mirror absorbing fragments and producing the experience of a mirage. The shape was there, extremely 'present', but at the same time completely subordinate to the location.

John McCracken has been working for over forty years on a coherent oeuvre closely related to minimalism. In the context of Minimal Art, his brightlycoloured columns, prisms, planks and simple volumes might be considered as a breath of fresh air. In McCracken's work, the theoretical background is not overpowering: beauty plays just as important a part as its neutral, singular formal idiom. Colour continues to play a leading role in his guest to narrow his formal idiom. In parallel with his coloured geometric volumes, he has over the years also done some forty works in polished stainless steel. McCracken sees them as testimony to the same endeavour to distil a form so that it can be grasped almost directly by the mind. In keeping with his work in enamel paint, where the surface is always partially reflective, these steel volumes are completely mirrored. They reflect the surroundings and the observer, while simultaneously absorbing it. In a certain sense these steel works are more closely related to Minimal Art than the colourful shapes. In this article, the characteristics of John McCracken's work are examined against and within the framework of Minimal Art as it came into vogue in the United States in the mid-sixties. His work is

compared with other minimalists like Carl Andre, Donald Judd and Robert Morris. At the same time his unique position and the individuality of his work are explained.

Minimal Art as a Distillation of the Work of Art

Minimal Art was born in the United States in early sixties. In contrast to Abstract Expressionism, the predominant style of the time, the minimalists wished emphatically to distance themselves from any form of composition and personal expression. The minimalists did not want to produce works of art where the observer could lose himself in the painted surface. The new generation did not agree with the idea that the content must be exclusively within the work itself, thereby eliminating the observer's subjectivity or corporality. Jackson Pollock's drip paintings, for example, or Mark Rothko's colour fields, flirted with the flatness of the painter's canvas and evoked an illusory space. The minimalists wanted to put an end to this socalled suggestiveness and the external significance the observer was able to project onto the work. Their aim was to distil the work of art to its pure essence. In their opinion this essence lay not so much in the work itself but in the confrontation between work, observer and surroundings. By making the work as simple as possible, they attempted to focus attention on the observer's perception and the work's relationship to the exhibition area. This resulted in shapes in materials such as plywood, Perspex and metal. The materials they used were all relatively 'new'. In the fifties and sixties the United States was in a period of industrialization. Since more and more materials and products were flowing constantly out of the factories, new materials - the metal tiles or bricks used by Carl Andre and the neon lights that became part of Dan Flavin's oeuvre - became more accessible to the general public.

A work of art was no longer considered a unique creation reflecting the artist's personal expression. Minimalists endeavoured to make the work as impersonal and neutral as possible. Addressing the viewer through direct experience was crucial. This resulted in radical, challenging works that could be seen as a kind of *tabula rasa*, in terms of both contemporary painting and sculpture. The aim was to return to a so-called 'pure state'. In order for the meaning to be attached to the relationship between the work and the surrounding space, and to remove the distance between the work and the public, these geometric works were set up directly on the floor of the exhibition space. The sculptures were not mounted on pedestals, framed or clearly delineated. By their simplicity, the works assumed

the nature of an object, but they also displayed similarities to architectural forms. Because these forms were situated directly in the space, one might call them site-specific. In addition, the work was completed by the viewer's perception, so it was also anchored in the 'here and now'.

Some minimalists greatly emphasized the theoretical foundations of this artistic movement. They repeatedly referred to the French phenomenologist Maurice Merleau-Ponty, whose book Le Phénomenologie de la Perception (1945) was only translated into English in 1962.1 According to Merleau-Ponty, we can never truly grasp a threedimensional work. The fact of the matter is that our eyes can never see every side of anything at the same time. By looking at an object successively from several sides we suppose that we know how the item is constructed. In this respect the French philosopher differentiates between 'seeing' and 'knowing'; a division which had formerly been literally cited in Cubism. Our brain automatically accumulates various impressions to form a coherent image, and this enables shapes to be recognized. The simpler the shape, the more quickly we can switch to this 'recognition' and are able to name the shape. This 'filling-in' which we mentally inject into a totality of impressions is called the gestalt. The gestalt is a known constant, a mental definition which comes into existence after a while. When a gestalt is known as a shape, it remains present as an entity. By keeping the volume as simple as possible, the minimalists wanted, on the one hand, to attain an almost immediate 'recognition' of the gestalt of a geometric shape or formation. On the other hand, they wanted the observer to take the time to test out this gestalt against his changing experiences whilst moving around the space.

The first exhibitions that could be called 'minimalist' date from the mid-sixties. Both in New York and Los Angeles there were many artists who wanted to extend into three-dimensional space the logic of the abstract, almost monochrome works by such painters as Barnett Newman, Ad Reinhart and Frank Stella. In 1966 the many artists working in this field were brought together for the first time by the curator Kynaston McShine in the 'Primary Structures' exhibition at the Jewish Museum in New York. This group exhibition of 41 artists from both Great Britain and the United States, is often said to have signalled the breakthrough of the new minimalist tendency. The artists shown came from both New York and the Los Angeles area, and included Carl Andre, Lary Bell, Judy Chicago, Tony DeLap, Donald Judd, Craig Kauffman, Sol LeWitt, John McCracken, Robert Morris and Tony Smith.

John McCracken's Minimalistic Formal Idiom

John McCracken (b. 1934, Berkeley) studied plastic arts at the California College of Arts and Crafts. At the end of the fifties he was painting in the Abstract Expressionist style. In 1962 he embarked on his search for a neutral formal idiom where unity was paramount. Initially he made low threedimensional reliefs with simple parts each painted evenly in a different colour. At the same time, he kept abreast of artists working along the same lines in New York and other cities by reading magazines on art and other subjects. McCracken then took his work on to the next logical step of actual space, no longer presenting his simple, monumental volumes on a pedestal. In these early sculptures John McCracken was searching for unity through a combination of such elements as colour and shape. With other artists from the Los Angeles area he shared a love of enamel paints and smooth surfaces. He developed a technique which he continues using today in which plywood shapes are covered with a layer of fibreglass and a thick layer of polyester mixed with resin and pigment. When the work is polished its surface is just like smooth skin. In 1965 — while he was still studying at the Academy - he was given his first exhibition at the Nicholas Wilder Gallery in Los Angeles. At almost the same time the young artists Dan Flavin and Donald Judd had their first one-man shows in New York. After a while McCracken's composite volumes became completely even in colour, and the shapes themselves also became increasingly simple.

In the spring of 1966 John McCracken wanted to tackle the next step in the process of "minimalizing, reducing and boiling down"². He arrived at a shape for which he is still famous today. In an interview, he explained that at a certain moment he was working in his studio when he saw a number of plywood panels standing against the wall ready for use. That was the moment he got the idea of simply leaning a plank, a simple long, narrow shape, directly against the wall. Because the plank was standing on the floor and at the same time leaning against the wall, this work was not a completely free-standing sculpture, nor a painting - even though it relates to the two-dimensional surface of the wall. In March 1966 the plank appeared in his sketch-book for the first time as a means of organizing space. The note he wrote with it was: "These

It should be noted here that the minimalists were only selectively acquainted with Merleau-Ponty's writings. They take only certain opinions which fit into their own artistic practice.

^{2.} Interview with Frances Colpitt, 'Between Two Worlds', in: Art in America, April 1998, p. 86.



Red Plank, 1966



Aluminium Model, 1966

things might be thought of as building elements that have to do with the human environment (for a new environment?). They are the essence of the man-made world."³ Initially he coloured them in an even red or blue, but later they were also in other colours like pink, green, white and black.

The plywood plank is a building material and in this respect is very similar to the Carl Andre's works in bricks and metal tiles. But since McCracken's works are positioned in the unique field of tension between floor/sculpture and wall/painting, this plank can be said to be more active than most minimalist sculptures. In his piece Specific Objects Donald Judd referred to the necessity for 'stability' and respect for gravity. Artists like Judd and Morris also emphasized that the new volumes must be able to be viewed from all sides. In the case of the plank the back remains more or less invisible. Nevertheless, McCracken stresses repeatedly that his work can clearly be counted as part of with the minimalist tendency that was receiving particular attention in New York. The plank is a standard form or gestalt. The way McCracken sees it, because the plank touches the ground on which you walk and the surface or wall at which you look, it links two worlds: the physical and the mental. In terms of format the plank can be called 'human', since it is always about two metres tall and about 40 cm wide. In his search for the correct proportions, McCracken discovered that a wider format makes the sculptures look too much like doorways. He sees them more as figures which are occasionally taller, shorter, wider or narrower but always have a certain proportion. "The works" - according to the artist - "may not look as though they are physically 'difficult' to manoeuvre. They should rather be thin and light. In fact, it is important to register the idea that 'they are able to be carried', that they can be moved mentally."4

McCracken is a significant participant on the contemporary art scene; his work featured in most of the major sculpture exhibitions in the latter half of the sixties. Both in the United States and Europe it always appears in every major survey. In 1966 he was in the 'Primary Structures' exhibition mentioned above. In 1968 his work was shown again at the Robert Elkon Gallery in New York. The large white cubes he presented there were a kind of collection of anonymous sculptures. Building on the reflective nature of the enamel-painted forms, he mixed aluminium into the white paint to increase the reflective power of the work even more. The formal idiom of columns, slabs, planks and prisms he

- '9 Drawings from the Artist's Notebook, 1965–66', in: Thomas Kelein, McCracken, Kunsthalle Basel, 1995, p. 20.
- 4. Op. cit, p. 32.

developed between 1963 and 1966 functioned as a solid basis for the growth of his artistic vocabulary. Unlike Sol LeWitt, Robert Morris, Robert Smithson and others, his work is mainly a matter of variations. In 1974 he also hung slender versions of his volumes horizontally on the wall. They act as a kind of guide for our eye movements. Some works are simple, long and rectangular; others consist of various surfaces. In the mid-seventies he experimented for a short time with patchwork patterns in the paint surface. From 1980, in addition to his life-size volumes, he also made smaller, more complex geometric shapes. Their smallness meant they were in fact not experienced as complex and here too the shape or gestalt could be observed almost directly. While the large works refer to the human body, in his small free-standing sculptures he focuses on human movements. They are shapes which can be grasped by our eye and mind. These small works are presented on low pedestals, so they can be viewed easily: "Small sculptures need to float high enough to be properly viewed, so they must go on some sort of structure that places them there."5

Experiencing Minimal Art as Theatrical and Anthropomorphic

In the course of the fifties, the art criticism that accompanied contemporary art work became increasingly important. Journalists and art historians functioned as spokesmen of sorts for the artist and also evaluated what was exhibited. Around 1960 magazines like *Artforum, Art International* and *Art Magazine* were widely distributed and read. Minimal Art brought with it a number of artists who had themselves had a theoretical education. For the first time their art was linked to the controversial theories which they published in books and magazines.

Journalists were not sparing in their criticism of the 'Primary Structures' exhibition in 1966. It was striking that hardly anything was written about the individual works but rather about the entire exhibition installation. A frequently expressed criticism was that the display looked like a setting for a play, with the works like pieces of scenery or props. The theatricality in Minimalism is one of the main targets in criticism of the movement. From the very start the debate was widely aired in the press and art magazines. It was fuelled by several theoretical essays that condemned the simple formal idiom. Authors described the volumes as design, as objects which could be made by anyone. Prominent art critics too spent time either running down or defending these neutral forms. In 1967 the famous critic Clement Greenberg wrote the essay Recentness of Sculpture. In it he described Minimal

Art as a momentary surprise which is however too superficial. According to Greenberg a 'real' work of art is an expression of the artist's thoughts and feelings. The geometric shapes were too closely akin to furniture and in his opinion should only be considered as 'good design'. Greenberg's disciple and colleague Michael Fried took this one step further. In his comprehensive and often-quoted 1967 essay Art and Objecthood, he condemned the new trend in detail. The notion of 'theatricality' is central to Fried's piece, and it is for this that he condemns the new objects. His case rests on three arguments. Firstly the minimalists are concerned with the total situation: experiencing the work in its entirety precedes a more detailed perception. Secondly, the works' human scale and measurements create a distance between the work and the viewer. Finally, he is critical of the role allocated to the viewer. Fried is of the opinion that, just as in theatre, minimalist works can only exist in the presence of an audience or viewer. This characteristic does indeed match the artists' intentions. According to Fried, quality art can in fact only be created within a branch of art that functions autonomously. Sculpture which incorporates implicit aspects of the theatre – namely time-span and audience - leads to a situation where "Art degenerates as it approaches the condition of theater."6

McCracken finds the time the viewer spends with the work important. The volumes acquire a meaning only through the observer's experience. McCracken also stresses that his works 'are apparent', that the gestalt can immediately be understood. The neutral form appears and simply says: "Here I am."7 It is only subsequently that moving around in the space and testing out one's own experiences becomes important. What sets McCracken apart from his contemporaries is that he gives personal view of the 'time' aspect. He does not see time as linear, but as something with no beginning or end. He wants to underline the fact that all things are essentially in the mind: energy, pure thought. His works, which are connected with the man-made world, are a kind of prototype of the world. They are concerned with how man's world might be shaped: the forms offer possibilities for the future.

7. Frances Colpitt, op. cit., p. 89.

 ^{&#}x27;Interview with Ghislain Mollet-Viéville', in: John McCracken, Galerie Froment & Putnam, Paris, 1991, insert with English translations.

Michael Fried, 'Art and Objecthood', in: Artforum, summer 1967. Re-printed in: G. Battcock (ed.), Minimal Art. A Critical Anthology, New York, 1968, p. 125.

East and West Coast Variations in Minimal Art

In the 'Primary Structures' exhibition and also in numerous others surveying contemporary art, Minimal Art was seen initially as an extremely broad movement. One characteristic of the East Coast artists was the more direct use of new materials, such as Dan Flavin's fluorescent lamps and Carl Andre's metal tiles. In addition to this, the theoretical writings, manifestos and interviews by the artists are evidence of an intensive theoretical discourse. Common features of the artists on the West Coast include the attention they devoted to smooth surfaces in their work, and their penchant for working with light and with even, monochrome colours. This geographical division is actually somewhat arbitrary and ignores nuances and numerous exceptions. Artists from both regions exhibited both in New York and Los Angeles often together. Together with the fact that their work was widely distributed through art magazines, this explains why their work can be considered part of the same movement.

However, at the end of the sixties there was a tendency to introduce a stricter artistic standard into Minimal Art. Now that many other artistic trends were coming to the surface, such as Anti Form, Land Art and Conceptual Art, there was a necessity to classify and define Minimal Art clearly. To achieve this, the writings of the artists themselves, as well as artists mentioned in critics' reviews, were used as a foundation. Since it was Donald Judd and Robert Morris who had more than anyone else clearly explained their ideas and the principles of the new movement, in Specific Objects and Notes on Sculpture respectively, they were the ones who came to the fore. It is striking that what they themselves showed at exhibitions often did not tally with their views, but this was ignored. It was primarily the formal characteristics that were categorized as typically minimalist. East Coast Minimal Art – which advocated a more sensual formal idiom - was pronounced too 'soft'.8 But there are no theoretical texts to elucidate their views. On this point, John McCracken says, "My objects are visual before all. They are less the product of an intellectual elaboration than one of an effort of visualization."9

From the end of the sixties a quite strict division was made between the East and West Coast artists, with the origins of Minimal Art invariably being attributed to New York. Artists from the Los Angeles region like Larry Bell, Tony DeLap, Craig Kauffman and John McCracken were labelled as variants and bundled together under the title 'Finish Fetish' or 'Cool School'. These designations refer to the smooth surfaces found in their

work and are connected with their interest in car painting techniques and industrial lacquers. Some of them, such as Larry Bell and James Turrell, used light in a simple manner to evoke experiences. Artists considered to belong to the 'hard core' of the Minimal Art trend include Carl Andre, Dan Flavin, Donald Judd and Robert Morris. Andre used untreated tiles, bricks and pieces of wood to stack or arrange simple shapes. Without any kind of treatment or adhesive, they simply lie on the floor in the room. Dan Flavin made use of standard fluorescent lamps. He hung the light frames in simple arrangements. They illuminate the entire exhibition space - the observer included. Unlike Andre and Flavin, Donald Judd elected not to present his square volumes untreated. Initially he painted them an even colour, but later he used standard materials like Perspex. His aim was to increase the unity of the work and divert attention away from their materiality. Judd presented his work in series hung on the wall at regular intervals or in a progressive sequence. The only works by Morris that come under Minimal Art are those from the midsixties, simple geometric constructions that often fill the room and address the viewer's corporality. Only a few works by Sol LeWitt, Ricard Serra and Dan Graham can be included in the Minimal Art oeuvre.

How do McCracken's forms fit into the world?

The human dimensions of the minimalist works distinguish them from earlier paintings and sculptures. Various artists argue that when the volumes become too small, they appear too much like objects. But if they become too large they take on an architectural air. By going for a size matching that of a human, it becomes easier to appeal to the observer's physical self. Because of their dimensions it is clear that the works belong to the manmade world. Even though the shapes first appear as *gestalt*. McCracken nevertheless emphasizes that they ultimately teach us something about the world. "I wish the viewer to be aware of the situation in which the work is being regarded. At the same time to leave the familiar world and the familiar perceptual criteria. The viewer's reactions and inner thoughts are entirely relevant, they are in a sense really part of what the work is, which is something like instruments, or devices, for consciousness to interact with."10 He is in pursuit of the essence in the sense that works should not

- 9. John McCracken, cat. Ilena Sonnabend Gallery, Paris, 1969.
- 10. Frances Colpitt, op. cit., p. 23.

See also: James Meyer, 'Another Minimalism', in: Ann Goldstein (ed.), A Minimal Future? Art as Object 1958–1968, Museum of Contemporary Art, Los Angeles, 2004.



Steel Sculptures, 1988

claim to be 'other' than what they really are. This respect for a work's individuality captures a kind of beauty: "Truth is beauty and beauty is truth".¹¹

In their visual form the works are minimal and simply geometric. The content John McCracken ascribes to the works reveals subtle distinctions with regard to what is generally assumed about minimalist volumes. By paring down the volumes he aimed not only to neutralize them but also to reduce them to a kind of archetypal form, one that preceded the ways they now appear. However, it would not be true to say that McCracken avoids more complex forms. He considers variations on geometric shapes as acceptable when they stem from the logic of the form itself. Even when the volumes possess a number of facets, he still sees them as singular forms that have absorbed variations. According to McCracken his works of art must be regarded as variations or resonances of the mental original.

In this respect John McCracken's underlying vision clearly has a spiritual side. He wants to emphasise the notion that in essence all things are mental, pure thoughts. His work is connected to the manmade world, and the forms are made by people. They are like prototypes of man's world, ways this world might be shaped, as possibilities for the future. The titles McCracken gives his works lead one to this sort of interpretation. With names like Portal, Visit, Spirit and Star they clearly have connotations that free them from the material world. He emphasizes that "The work is about multiple dimensions of reality and development of consciousness."12 The fact that they can be experienced as 'pure' is therefore more important to the artist than the original, material visual form: "I would rather have my works survive in slightly altered form. I would like to think that my work doesn't depend on the vagaries of the physical world, in order to continue existing, or to come into existence at any time or place. Plans for a sculpture could be taken or sent to another planet and the work could be constructed there."13

In addition to the single-volume works he made in the sixties, after a while McCracken also introduced variations to the plank and column forms. These were geometric volumes with obliquely truncated corners. He did not see these variations as in any way conflicting with his pursuit for unity. He regarded them as attempts to inject personalities into the sculptural forms, as representations of

- 11. Thomas Kelein, op. cit., p. 24.
- 12. Op. cit., p. 28.
- 13. Ghislain Mollet-Viéville, op. cit., no p.

individual characters within a species. "One piece more or less follows another as the 'species' unfolds. Each is related to the other while on the other hand, each is itself, coming out of a unique impetus to exist."14 The shapes are given a specific character: some are long and elegant, others more block-shaped or ambiguous. For McCracken this is an attempt to 'animate' the shapes, to allow them to comment on the world. His intention was, through these more complex shapes, specifically to approach the singularity so accentuated by Minimal Art. He did this by actually allowing a work, no matter how complex, to nevertheless be unitary. These more complex geometric sculptures create an optical game in which, from certain viewpoints, certain facets disappear and re-appear. When creating this kind of work, the artist claimed to have studied natural crystalline shapes: he wanted to transpose the logic from these facetted, angular forms into the creation of more complicated ones.

Colour as Material

Besides McCracken, other artists such as Judy Chicago, Donald Judd and Sol LeWitt also produced work in even colours with no expressiveness or patina. The colours in Judd's work are in fact peculiar to the material used: he ordered coloured Perspex panels to construct his volumes and had the metal coloured by machine. The different shades in Andre's metal tiles are due to the types of metal used. McCracken always works with the same saturated monochrome colours. In fact, he is first and foremost interested in 'form'. Since 'form' is really only a mental concept, you need something - a material - that can be experienced.¹⁵ He asserts that colour is the material from which the forms are made. This materiality can be eliminated by the introduction of colour. According to McCracken each shape dictates the application of its own colour. This confirms the idea that he does not think the 'colour' element can be seen as either decorative or as a standard colour (corresponding to Sol LeWitt's white). With colour eliminating the materiality, when it comes to his work McCracken refers more to 'zones' than things. He wants to give a certain individuality to the colour itself: "I create the form and I create the color it will be made of. I follow my perceptions and feelings in trying to make up a good one. I try to get one that is as individual as the form, and that fits with and furthers that individuality. It's a matter of a number of factors coming together to form a gestalt that has the spark and power of the presence, and the quality of being, I want a piece to have. They are paintings of sculptures."16

In order to achieve neutrality the forms need to be perfectly finished. John McCracken sees their visual form as subordinate to their materiality. He experimented extensively in his search for techniques to achieve perfectly smooth surfaces. Producing a work is a long, time-consuming process, involving the use of numerous synthetic products, procedures and hand tools. He would prefer to work with an extremely sophisticated machine that would make his work 'physically perfect'. Contemporaries like Donald Judd claim publicly that they are only able to produce a work by placing an order with a factory or by sending a simple sketch. This is not the case with John McCracken. In his pursuit of 'physically perfect' forms, his experience with 'manufacturers' was unsatisfactory. Since each work is given a colour matching its form, the process is difficult to monitor: "I would like the pieces to be crafted completely by others to my specifications. But some aspects would be difficult to control remotely very well, so I would have to oversee them more than others. Colour, in particular, is almost impossible to specify exactly, and so in colour pieces I would have to mix colour myself. Colour is the most difficult to reproduce."17

Volumes in Stainless Steel

Because he used enamel paint, McCracken's work has always been extremely reflective. Both the space and the observer are partially reflected in it. The works in reflective stainless steel occupy a unique position in his work as a whole. McCracken himself makes no distinction between the works in steel and the coloured forms. In his opinion, every material - including stone, for instance - can work in principle, provided a unity and a level of abstraction is achieved. Works in steel are difficult to process using hand tools. They are made as smooth as possible by machine and subsequently polished. This results in smooth surfaces where the form must never be a distraction and even seems almost to hover in the space. Because of its polished surface the sculpture is completely reflective, as if the work were made of mirrored glass. The reflective surface is linked to a broader art-historical context, such as work by Anish Kapoor, Dan Graham's pavilions, and even Brancusi's bronze forms. Nevertheless these reflecting forms occupy a fascinating position in Minimal Art. The aim of the minimalist work was to show everything - materiality, colour, form - as lit-

- 14. Frances Colpitt, op. cit., p. 89.
- 15. Thomas Kelein, op. cit., p. 22.
- 16. Chislain Mollet-Viéville, op. cit., no p.
- 17. Op. cit., no p.



Computermodel exhibition 'Steel Sculptures', 2003

erally present. This is encapsulated in Frank Stella's often-quoted one-liner, "What you see is what you see."18 The mirror undermines the objectness, so that the work's singularity is ignored. The experiences of seeing and not seeing the object occur simultaneously. The immediate recognition of the *gestalt* is consequently considerably delayed. However, in a paradoxical way the mirrored surface does actually show what is essential to the minimalists, which is the surroundings and the viewer. It is probably because of this that in 1965 Robert Morris also showed volumes in mirrored glass, just like Robert Smithson, who for Mirror Displacement photographed square mirrored panels in various locations, both in- and outdoors.

The nature of McCracken's polished steel pieces is in a certain sense different from actual mirrored glass. In Morris's mirrored cubes, for instance, the joins are visible and one is aware that the work is made of six panels. McCracken's steel volumes are one, and feel more like a single volume. The steel surface differs from a glass panel. The steel pieces catch images and immediately return them to their source. Like a range of optical instruments, the sculptures produce images of what can be seen around them. They appear to examine the surrounding space, turn it around and cut off a segment of it. In various collections McCracken's steel pieces are placed outdoors. Simply because they absorb their surroundings the volumes become less severe or 'cool' and create an optical illusion.

Because of his collaboration with external manufacturers, the steel pieces were made in welldefined periods. He did a considerable number in 1988 and more in 2000. During the sixties and seventies the forms originated from drawings in his sketchbook. The advance of computers in the eighties enabled McCracken to make increasing use of computer-aided design programs. Unlike paper on which you can only achieve partial visualization - he could now do three-dimensional drawings that permitted more complicated, faceted designs to take shape. He used the Polyhedron interactive geometry program. This three-dimensional drawing program contains a multitude of geometric shapes which can be adapted using tools. The forms can be rotated on the computer screen to construct one that is satisfactory. In contrast to the creation of composite volumes, his working method started with a simple form from which he cut pieces away. This technique most closely resembles sculpture where you work on a shape - a piece of marble, for example - by chiselling pieces away. Working with the computer reconciles the two-dimensional and three-dimensional approaches.

John McCracken's sculptures are still and yet at the same time generate movement. His colourful sensory aesthetic makes him one of the most enduring figures in the minimalist movement. His objects activate their surroundings and trigger experiences. At the same time McCracken sees his work as a series of prototypes within a broader world view. In this way he displays a more idealistic attitude than most of his contemporaries: "I've always felt that it was possible that it could change or transform reality, or the world. A work being so tuned that it somehow alters the constitution of things."19 Even though this view may seem somewhat pretentious, it nevertheless ties in with my experience of the Teton steel column in the Dutch sculpture park. The form appears to take up no space but rather to erase a fragment of space. So it is hardly surprising that both artists and critics link his work to a reality governed by other temporal dimensions and parallel worlds. In his work McCracken aims to offer us a window onto a reality beyond the physical world and to change or extend our idea of it. John McCracken's goal is, precisely by means of 'simplicity', to achieve 'maximum intensity'.

 Frank Stella in conversation with Bruce Glasner 'Questions to Stella, Judd and Flavin', in: *Minimalism*, Phaidon Press Ltd., New York, 2000.

19. Thomas Kelein, op. cit., p. 28.