



*Useless Machine*, c. 1957  
Plexiglass, nylon and brass  
350 cm h., 50 cm approx. diam.  
Private Collection

## The Maximum with the Minimum

Luca Zaffarano

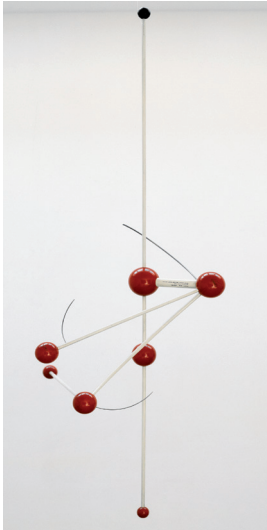
### Complexity and Creativity

Bruno Munari is one of the most interesting Italian artists of the twentieth century, for at least two principal reasons: the complexity of his poetic thought – explored through tireless experimentation – and the high standard of his work, which remained constant until his death.

The richness of his thought was expressed not only in fine art, but also in many related spheres such as illustration, graphics, advertising, industrial design and education. Its very complexity has led to his work being penalised from the perspective of historical analysis, the process of understanding the artist according to a deconstructive and classificatory method having resulted in drastic over-simplifications. The figure of Bruno Munari is too layered and kaleidoscopic to be described in a brief overview; scholars have frequently researched his work by applying arbitrary segmentations, resulting in Munari having been presented from time to time – and in a mutually exclusive manner – as a designer, educator, inventor, writer or graphic designer, among other things: all reductive definitions that do not enable comprehensive analysis of his work's organic diversity.

Munari's mode of expressing himself in an apparently discontinuous and mutable manner, paying little attention to pre-established hierarchies in terms of the techniques and media employed,<sup>1</sup> constitutes its indisputable relevance – especially today, when the notion of a free, cross-fertilisation between different disciplines, genres and media has been definitively accepted. His creative process deliberately incorporated different materials, ideas and inventions through an approach that was never sequential, and therefore difficult to describe in a linear manner, being instead characterised by a parallel vision that manifested itself through the reworking of an idea in a multiplicity of forms. Munari always maintained a staunch didactic and theoretical opposition to an

<sup>1</sup> In the volume by T. Sauvage, *Pittura italiana del dopoguerra (1945-1957)* (Milan: Schwarz, 1957) Munari describes his disregard for *a priori* definitions in these words: 'The artist's task is to communicate to other individuals a poetic message, expressed through shapes and colours, in two or more dimensions, with movement; without *a priori* concerns over whether the result will be painting or sculpture or something else (such as useless machines or projections) provided it contain this message and that this message speaks, that it is understood by at least a minimum of people.'



*Aerial Machine*, 1930, 10 copies reproduced by Danese, Milan, in 1971.

adherence to any recognisable formal vocabulary, to the extent that the 'Munari-style' has been defined by an Italian semiologist as essentially a 'non-style'.<sup>2</sup>

As an artist, Munari maintained the role of a pioneering researcher with unusual consistency and appreciable coherence throughout the course of the twentieth century. From Futurism to the Concrete Art Movement, from his 'aerial' installations of the 1930s to the abstract works of the 1940s, from his dematerialised paintings created by means of light projections dating from the 1950s to the performance pieces of the 1960s, and from his graphic design projects to his theoretical texts, Munari sustained, intact and uncontaminated, an extraordinary level of creativity from the 1920s to the 1990s. In this respect, his work contrasts with that of many other figures, whose career paths can be plotted along a Gaussian Curve, where a peak of artistic maturity is followed by a long phase of decline and repetition – often in deference to the requirements of the market.

This anomalous and exceptional level of creativity was the result of a constant method based on pure research, free from preconceived aesthetic ends and primarily directed towards exploring the characteristics of the media employed and their technological characteristics: a method centered on the belief that only through the knowledge and mastery of materials and technologies (combined with serendipity) may a creative form of visual communication emerge. A method by which wisdom, rigour and design are married with fantasy and poetry through a process of experimentation, producing visual art whose apparent inutility reminds us of just how valuable the useless process of creating and inventing really is.

<sup>2</sup> O. Calabrese, 'Munari style: senza style', in *La Repubblica*, 1 June 1990. In an interview given to M. Giuffrè and published in *Manifesto*, 22 December 1995, Munari stated: 'There are different ways of making art. One, for example, which is the most common, is to give it a style. So it happens that a certain artist will create a certain kind of art for his entire life. All this does not enrich knowledge, but only serves to confirm that there is that form of art and nothing else. So I think I'm among those who instead follow their own natures, where reality leads them at a precise moment. I try to find out if there is something to learn from nature and to create something in

An example of *Cosmic Painting*, from *La Rivista Illustrata del Popolo d'Italia*, no. 11, November 1935, Alfieri & Lacroix, Milan, 1935.



### The Machine Room

In 1926 Munari arrived in Milan at the age of nineteen, having decided to become a painter and desiring to escape his parent's hotel business, based in the Polesine area south-west of Venice. He immediately came into contact with Futurist circles, and at the end of 1927 participated in his first group show entitled 'Exhibition of Thirty-four Futurist Painters' organised by the Galleria Pesaro, towards which the Milanese Futurist group gravitated.<sup>3</sup>

Munari was noticed almost immediately by Marinetti who, on the occasion of an exhibition of 1929 entitled 'Thirty-three Futurists – Painting, Sculpture, Decorative Art' (again held at the Galleria Pesaro), observed in his catalogue essay how 'The Milanese group of Futurist painters led by the very young and very ingenious Bruno Munari reveals itself to be in full working order'.<sup>4</sup>

In 1930 Munari was only twenty-two years old, yet through direct contact or with the mediation of Prampolini, he was very well-informed about new artistic developments and the research of the major European movements and figures (Kandinsky, Man Ray, Duchamp, De Stijl, etc.).<sup>5</sup> With a certain degree of autonomy and a precocious maturity, Munari soon realised that he was not entirely in tune with the theoretical positions of the Futurist movement – the inherent and logical limitations of which he grasped when attempting to create dynamic-spatial compositions while remaining within the restricting confines of the two-dimensional painting.

The European context in which Munari's work evolved was punctuated by a number of renowned events, which for the sake of completeness we shall briefly summarise here. In 1920 the Russian artist Rodchenko presented a suspended structure entitled *Oval Hanging Construction No. 12*, and the following year displayed three

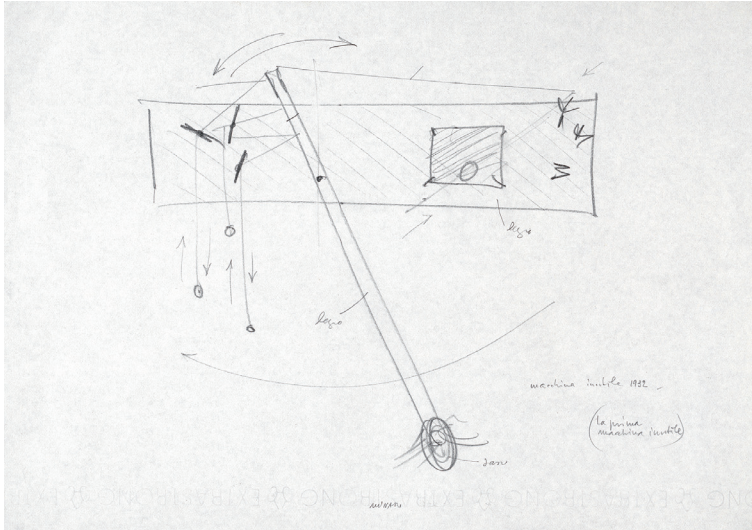
three dimensions that will visually communicate what I have discovered.'

3 E. Crispolti, ed., *Nuovi Archivi del Futurismo. Cataloghi di esposizioni* (Rome: De Luca, 2010), pp. 279-82.

4 Ibid., pp. 328-31.

5 A. C. Quintavalle, 'Intervista a Bruno Munari', in *Bruno Munari* (Milan: Feltrinelli, 1979), pp. 15-22.





Drawing of *Machine's Breath* (*Useless Machine*) 1932.  
Jacqueline Vodoz - Bruno Danese Foundation, Milan.

monochromatic works in the primary colours red, blue and yellow at the '5 x 5 = 25' exhibition, each called *Last Painting*.

Prior to Rodchenko, in 1915 Kasimir Malevich painted a black square on a white background: a work that not only signified the negation of painting, but also 'the painterly equivalent of the Ka'ba covered by a black curtain'<sup>6</sup> as Bruce Chatwin states, reminding us that the Russian Constructivist movement contained a strong Muslim element.

If – for these protagonists – the negation of the idea of painting by recourse to the monochromatic surface contained a blend of libertarian mysticism (Malevich) and revolutionary socialism (Rodchenko), the rejection of painting in the famous manifesto of 1915 written by the Italian Futurists Balla and Depero entitled 'Futurist Reconstruction of the Universe' was principally motivated by a desire to transcend painting in order to give shape to the invisible. However, this text addressed theoretical intentions rather than practical results. In 1919 Man Ray created his *Lampshade*; some years later, one of Moholy-Nagy's students at the Bauhaus, Irmgard Sörensen, constructed a suspended object.<sup>7</sup> In the 'International Surrealist Exhibition' of January 1938, Duchamp hung sacks of coal from the ceiling, whilst in the centre of the room stood an old Parisian taxi fitted with a hydraulic system that made rain fall both on the driver – who had the head of a shark – and a blonde passenger whose clothes were covered with lettuce. This installation took the viewer into a world rich in the unexpected, the playful and the absurd – a world no longer having anything to do with the picture or with painting.

In 1930, engaging with contemporary theoretical reflections concerning the decline of easel painting, Munari produced his first work able to move freely in space, christening it his *Aerial Machine*. This piece – which was

6 B. Chatwin, 'George Costakis: the Story of an Art Collector in the Soviet Union', in *What am I doing Here* (London: Picador, 1990).

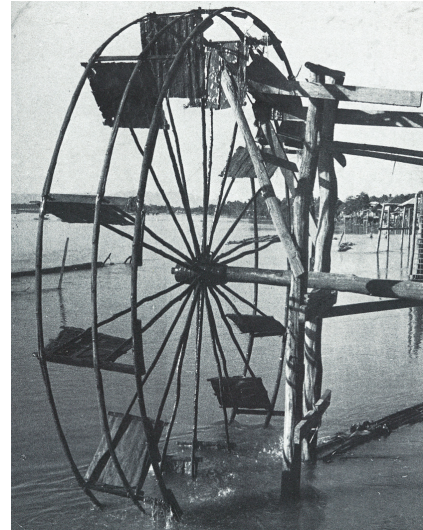
7 H. M. Wingler, *Il Bauhaus* (Milan: Feltrinelli, 1987), p. 399.

8 B. Munari, *Codice Ovvio* (Turin: Einaudi, 1971), p. 6.

9 A. Benedettini, 'Munari, 90 anni di fantasia', in *La Repubblica*, 23 October 1997; C. Lichtenstein, A. W. Häberli, 'Bruno Munari. Air Made Visible' (Zurich: Lars Müller, 2000), p. 274.

10 On the dating of the *Useless Machines* the author relates the oral evidence given by Munari to the art historian Miroslava Hájek concerning a mobile created in 1930, and therefore contemporary with the *Aerial Machine*, hung by Munari in the end room of the studio he shared for a number of years with Ricas (Riccardo Castagnedi), and which he simply called 'the machine', which was composed of free-moving elements. A preparatory drawing for the *Useless Machines* dated 1932 can be found in the collection of works that Munari

*The Big Wheel*, water-wheel on the Adige river.

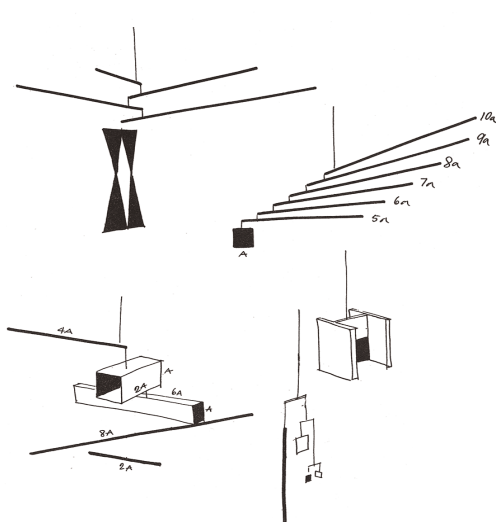


accidentally destroyed, but reconstructed in 1971 for the Milanese Danese company in an edition limited to 10 examples – was an object composed of white wooden sticks connecting seven red balls and one black sphere, as well as a number of curved metal inserts. 'Hanging from the ceiling of a room by a cord, it moved slowly, driven by air currents. It was like a constellation, a group of atoms, or – as one might say today – a space station'.<sup>8</sup> Close analysis of the *Aerial Machine* recalls similarities with the cosmic imagery characteristic of Futurist painting during these years, particularly that of Prampolini and Munari himself, who throughout this period was greatly interested in scientific literature, astronomy and the works of Leonardo.<sup>9</sup> Around the same time<sup>10</sup> he realised his *Useless Machines* – effectively 'mobiles', where each element of the structure was free to move with random rotations around the vertical axis of the cord on which it was suspended, unlike the rigid *Aerial Machine*. These components likewise exploited the force of air currents – even the very weakest – to generate movements in the same or contrary directions, and of different speeds, bringing an element of change and surprise to these compositions of coloured forms, painted on both sides and floating in space. As stated, compared to the *Aerial Machine* these later works possessed an additional degree of freedom, since it was not the entire structure that moved in space but each individual element, independently of the others. The *Useless Machines* were therefore the result of an aesthetic idea similar to that which formed in the mind of Calder following his revelatory encounter with the minimal paintings of Mondrian: namely, the desire to project abstract paintings into space and endow them with a temporal dimension. For this reason Munari's *Useless Machines* have been identified as some of the first examples of kinetic art by Frank Popper,<sup>11</sup> alongside works by Man Ray, Rodchenko and Calder.

Munari first exhibited examples of his *Useless Machines* in Futurist exhibitions such as the 1934 show 'A Selection of Twenty-five Year-old Futurists' at the Galleria 3 Arti in Milan. At the opening, Depero delivered a discourse in

donated to the Centro Studi e Archivi della Comunicazione (CSAC), University of Parma (B006568S-C1 / 3). A study for the lost work *Machine's Breath* – an amusing machine-metronome, also dated 1932 – can be found in the Jacqueline Vodoz - Bruno Danese Foundation (Milan). In his essay 'La Santabarbara futurista di Milano', published in the journal *Futurismo*, 18 June 1933, Tullio d'Albisola describes a visit to Munari's studio and speaks of the 'large, but silent, model of the "Useless Machine"'. In December of that year Munari wrote to Tullio d'Albisola: 'I am now creating some important paintings and aeroplastics (that is, sensitive machines) but tommaso [Marinetti, ed.] doesn't understand anything about these things and exalts the drawings of camillo camillini from reggio before remembering those who are undertaking serious research to elevate the name of Italian futurism, damn it [...]'; in Quaderni Tullio d'Albisola no. 2 (1928-1939), ed. by D. Presotto (Savona: Liguria, 1981).

11 F. Popper, *L'arte cinetica* (Turin: Einaudi, 1970), p. 334.



Drawings of *Useless Machines*  
1935-1945

which he spoke about the aesthetics of the *Useless Machines*.<sup>12</sup> Munari presented eight works on this occasion, including *Machine's Breath (Useless Machine)* and the 'aeroplactic' *Volumes of Air*; he also signed the *Technical Manifesto of Futurist Aeroplastics* in which he proposed a new art: 'machine = art, that is, invention of useless machines'.<sup>13</sup> They were also displayed later that year in the 'Rooms of the Twenty-five Year-old Futurists of the Milanese Headquarters' at the Teatro Municipale in Reggio Emilia,<sup>14</sup> as well as at the exhibition 'The Futurist Aeropainters', inaugurated by Marinetti at the Galleria del Milione in 1938, where *Useless Machines 21* and *23* were displayed.<sup>15</sup> Munari devoted an essay to these works entitled 'What Useless Machines are and Why', which appeared in the journal *La Lettura* in July 1937, and which is reproduced in the Appendix to the present catalogue. Many of the first examples of these works are now lost. Munari immediately ran into difficulties with art dealers who manifested a constant diffidence towards works that could in no way be described as examples of traditional painting or sculpture, being objects intended to be hung from the ceiling like a chandelier. Consequently, the first *Useless Machines* were given away to artist or architect friends who, probably because of their lightness, simplicity and humble materials – sticks of balsa wood, cardboard, blown glass, etc. – considered them to be something like a child's toy, and certainly not comparable with the monumental paintings of artists such as Sironi or Carrà.<sup>16</sup> After many decades Munari recreated some of the earliest examples in limited editions, indicating both the date of the object's creation and that of its reconstruction.

Unlike Calder's works, Munari's *Useless Machines* were closely related to their environments; the 'mechanical' elements, illuminated by spotlights, interacted with the shadows they projected onto the walls, generating abstract films from nothing. *Useless Machines* were made from real images, obtained by the object's moving parts and geometric images reverberating in a continuous dialogue that incorporated an element of the unexpected.

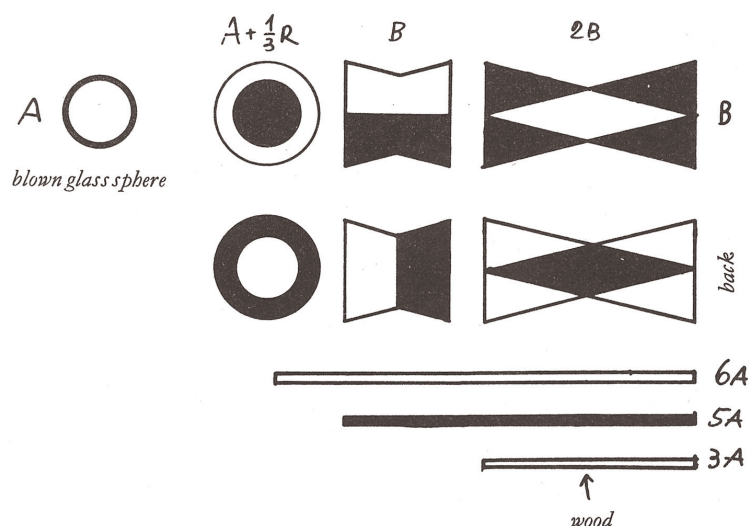
12 Manuscript of Fortunato Depero, 'Discorso di Depero alla Galleria delle 3 Arti – Foro Bonaparte – Milano marzo 1934', Fondo Fortunato Depero (Dep.4.1.72), Archivio del '900, Museo di Arte Moderna e Contemporanea di Trento e Rovereto; 'La quindicina futurista inaugurata da Depero', in *Il Corriere della Sera*, 5 March 1934.

13 The list of works appears in the brochure accompanying the exhibition, reprinted in *Nuovi Archivi del Futurismo*, op. cit., pp. 575-77.

14 The exhibition was announced in the article 'Mostra futurista', published in *La Città Nuova, sintesi del futurismo mondiale e di tutte le avanguardie: quindicina di arte e vita*, directed by Fillia, vol. III, nos. 7-8, 30 April 1934, p. 7.

15 *Nuovi Archivi sul Futurismo*, op. cit., p. 686-87.

Study for a *Useless Machine*.



Accordingly, for Munari the *Useless Machine* transformed itself into an environment that enveloped the viewer in both direct and indirect forms, mobilising the sensitivity of the public as well as challenging its aesthetic certainties.

In an Italian context, one must of course make reference here to the theoretical propositions expressed by Boccioni in his 1912 *Technical Manifesto of Futurist Sculpture*, where he stated 'there can be no renewal except through a sculpture of the environment, because only by this means can plastic art develop and come to model the atmosphere which surrounds objects'. Another crucial text is the aforementioned manifesto 'Futurist Reconstruction of the Universe' by Balla and Depero, which represents the real 'big-bang' for the poetics and aesthetics of Munari, especially in terms of the authors' stated ambition to 'create plastic complexes which we will set in motion' giving 'skeleton and flesh to the invisible, the impalpable, the imponderable and the imperceptible' elements of the universe. Munari's *Useless Machines* – the forerunners of kinetic art – perhaps also constitute the most complete realisation of such theoretical principles.

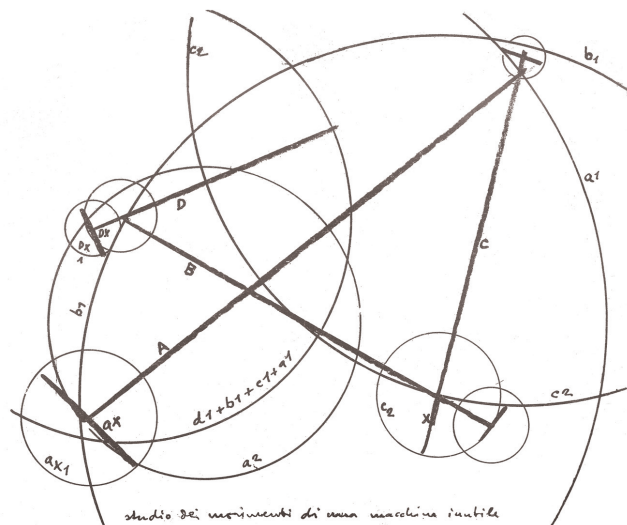
Whilst possessing a dominant programmatic character, the *Useless Machines* are perhaps closer to certain natural phenomena than has hitherto been recognised. Munari recalled in an interview the games he played as a child in which nature was seen as an incomparable designer, the artist discerning in natural processes a coherence between form, function and use. Munari explained how the idea of the *Useless Machines* came in part from the observation of such natural phenomena as the play of water generated by old mills on the Adige river with their large paddle wheels,<sup>17</sup> as well as the effects of air currents, thereby also relating the *Useless Machines* to childhood games created with scraps of paper that were taken up again some years later in the famous performance 'Making the Air Visible' at Campo Urbano (Como, 1969).<sup>18</sup>

16 B. Munari, *Design as Art* (London: Penguin, 2008), p. 15-23. First Italian edition Bari: Laterza, 1966.

17 Munari spent his childhood in Badia Polesine, a region to the right of the Adige River.

18 Como, 21 September 1969, L. Caramel, U. Mulas and B. Munari, *Interventi estetici nella dimensione collettiva urbana*, catalogue with photographs by Ugo Mulas and graphic work by Bruno Munari (Como: Nani, 1969). Munari's memorable performance 'visualised' the air of the Piazza Duomo by inviting the public to fold and cut pieces of paper and throw them from the tower.





Study of the movements of a *Useless Machine*, published in issue no. 5 of the M.A.C. (*Movimento Arte Concreta*) Bulletin, 1952.

Munari explains: 'At Badia Polesine where I was born there is a river, which is very beautiful, and there are these old mills that are made of wood with thatched roofs and large paddle wheels that are driven by the water, moving and pulling up the weeds of the river; it's all a game of colours and lights, very beautiful'.<sup>19</sup>

He goes on: '[...] in my father's house there was a huge attic with [...] very low windows reaching to the floor from which I threw strips of paper in different shapes, such as a small rectangle measuring one by fifteen centimetres; as it fell this rectangle span around and looked like a wrapped sweet. I also cut a small triangle of paper measuring about five centimetres by ten [...] and let it fall from the window; it wavered a little, like a dead leaf, since the centre of gravity was out of kilter with the form...'.<sup>20</sup>

When asked how he had conceived of the *Useless Machines* Munari replied: 'I think the idea was born from an observation of abstract painting. And also in connection with those pieces of paper that I released into the air as a child'.<sup>21</sup>

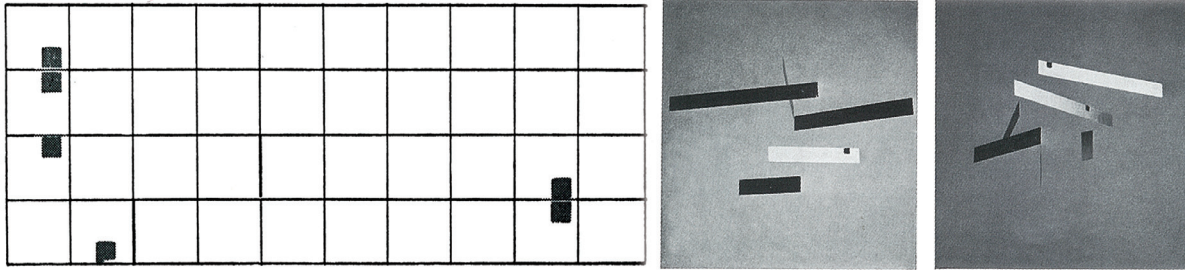
The *Useless Machine* was therefore not a senseless, repetitive, mechanical object, but rather an unpredictable and random one; almost a creation with its own life, and even a little 'imaginative' in nature.

The concept of unpredictability often recurs in the work of Munari and was used by the artist not only for its function as an 'engine' – as a motor for the generation of the machine's movements – but also to form an analogy with and imitation of that which Munari observed within the natural world, where the randomness determined by many different environmental conditions alters those rules which, described by means of formal generative grammars, are the basis of the morphogenesis of all natural processes.

19 A. Barberis, 'Intervista a Bruno Munari', in *Le voci che contano* (Milan: Il Formichiere, 1978).

20 Ibid.

21 Ibid.



Harmonic design for a *Useless Machine*, 1956-68. The aluminium foil anodised with serigraphy colours has been cut to obtain the six elements constituting the machine (2 elements 10 squares long, 1 element 8 squares long, 1 element 6 squares long, 1 element 4 squares long and 1 element 2 squares long).

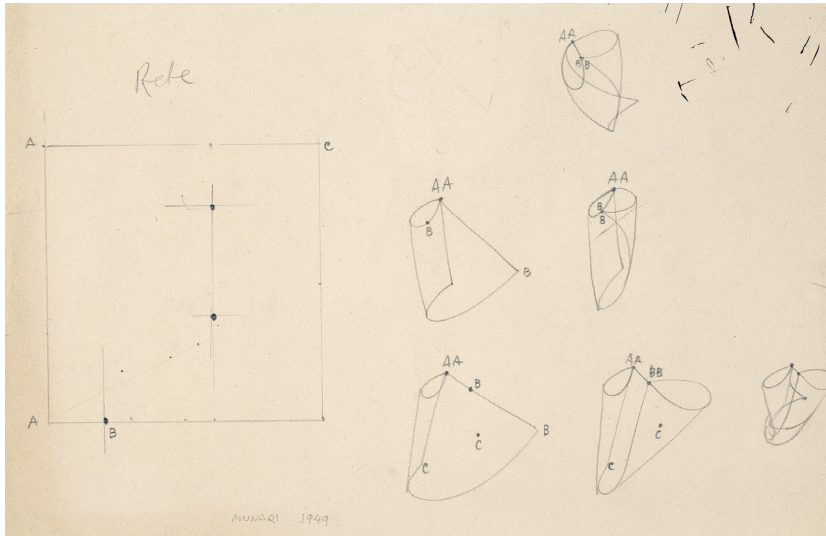
Accordingly, the need was felt to create an artistic environment in which the audience was able immerse itself, and where the work in movement interacted with its reverberations, shadows, moiré patterns, random movements and sounds – as in the case of the *Useless Machines*, but also the *Concave-convex* of 1946, or those images dematerialised by means of projected light, or deconstructed with Polaroid filters (1950-53), or even by the *5-Drop Fountain* made in Tokyo in 1965.

The description of the machine as 'useless', which contradicted Marinetti's perception of it, is a wry oxymoron that forces us to think about the usefulness of the useless (art) and the uselessness of the useful (the machine), making us reflect on this concept even in the context of our daily lives. The title has the strength and simplicity of a slogan: it reminds us that the useful machine has an in-built obsolescence, in contrast to the beneficial utility of the *Useless Machine's* pure poetry which, through its unstable and changing forms resembling music, is intended simply to delight and to keep us entertained.

### Is Munari an Open-source Paradigm?

Without entering into the argument concerning what is and what is not art, a subject to which Munari himself devoted much thought in texts such as *Artist and Designer*,<sup>22</sup> it is nevertheless important to note that generally speaking an artistic aesthetic primarily aims at promoting a new type of beauty or aesthetic harmony, whilst a design is subject to the constraints imposed by the client in terms of material, use, affordability and so forth: all limits that suddenly disappear when the production is for useless – that is to say, aesthetic – ends.

22 B. Munari, *Artista e designer* (Bari: Laterza, 1971).



Study for *Concave-convex*  
1949.  
Jacqueline Vodoz - Bruno Danese  
Foundation, Milan.

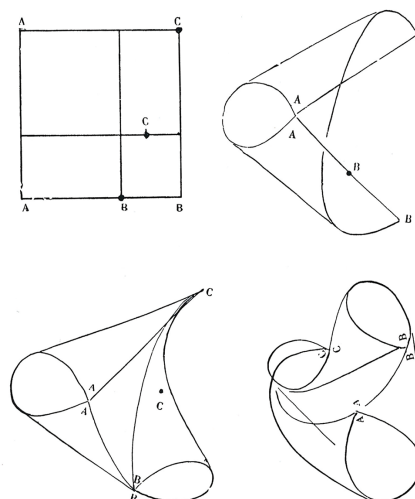
On closer inspection this duality cannot be applied mechanically or without some adjustment to the work of Munari, in which there is always an element of overlapping. All of his aesthetic explorations, from the *Useless Machines* to the *Concave-convex*, *Projections of light*, *Polarised projections* and *Negative-positives* were explained in detail by the artist himself in many books,<sup>23</sup> not so much because the work required a further written clarification in order to be completely understood, but to reveal the creative processes underlying the constructive method. In general, the morphogenetic process is as important as the aesthetic result in the work of Munari, describing a rigorously experimental method to which the variations brought about by the use of imagination and aesthetic knowledge gained or consolidated in the moment of creation, or previously, apply. *Everyone sees what he knows*<sup>24</sup> is a synthetic aphorism used by Munari to explain the falsity of the popular assertion according to which beauty is subjective. Inverting the logic of this statement, it is reasonable to say that that which is subjectively appreciated is an objective indicator of the degree of visual culture established – and cultivated – within the individual viewer. Munari believed that seeing is a cognitive process which must be nourished, expanded by curiosity and open to the acceptance of new and even disruptive or unexpected forms of beauty.

In his books Munari explains how to design a *Useless Machine* in accordance with a constructive method that employs shapes, colours and movements which are proportional, harmonious and rhythmic. He explains how to fold wire mesh in a particular manner in order to obtain a *Concave-convex*, the form of which clearly adheres to the topography of certain mathematical structures, and tells us how to light the object in such a way as to obtain overlapping effects of shadows. He provides details of how to create monumental works able to be projected onto the walls by inserting different materials into a slide and projecting light through it. Such a deliberately didactic method is not aimed at explaining the beauty of works that are able to communicate without the need for

<sup>23</sup> For a complete bibliography, see G. Maffei, *Munari's Books* (Mantua: Corraini, 2009).

<sup>24</sup> 'Everyone sees what he knows' is a paragraph that summarises the fifty lectures Munari delivered concerning visual communication at Harvard University in 1967 (Carpenter Center for the Visual Arts, Cambridge, Ma.) collected in the book: B. Munari, *Design e comunicazione visiva* (Bari: Laterza, 1968).

Study for *Concave-convex*. In the drawings, the different developmental phases of the object are visible; the fixing points are established on the surface of the square with harmonious proportions.



additional explanations, but corresponds to a pedagogical intention of describing the creative process, of revealing the experimental act and of violating a code established by the imagination. In this sense Munari's compositional code is strongly open-source, modifiable, improvable. Munari tells us how he starts his works, how he achieves his results and shows us the way to making them better as well as in a different manner, with an approach towards art that is not elitist or exclusive. For him the work of art was not to be understood as an exclusive luxury item made for the few, but a product that would foster the cultural development of an altogether wider, open-minded public. 'We comprehend the full importance of a work of art only when, in our mental processes, we go through the same problems that the artist went through in producing his work'.<sup>25</sup>

In many cases Munari developed a Socratic and engaging approach, of the kind long used in educational workshops for children and adults, and that would originally take place under his careful supervision. This is described in the testimony included in the present catalogue by Munari's son Alberto, in which he explains how as a thirteen year-old he assisted with the development of one of Munari's greatest innovations through an experimental and playful approach: the dematerialisation of painting.

The sharing of knowledge was one of the key points stressed in his immense activity as a writer, critic and thinker over the course of more than 80 books. The sharing of a technique, of the compositional properties of a material or a graphic invention, always entered into the semantics of his works of art.

Of course, the true function of art is precisely that of communication and exposition, and Munari often created works in which he clearly illustrated the creative process, the way in which he arrived at a particular aesthetic result, which mental processes he developed, where imagination or chance intervened to influence the project

<sup>25</sup> J. Dewey, *L'arte come esperienza* (Florence: La Nuova Italia, 1951). Munari contributed a review of this text to issue 8 of the *Bollettino del M.A.C.* (Movimento Arte Concreta), 15 October 1952, in which he highlighted the importance of the chapter dedicated to criticism.



*X-Hour*  
1945

and what process of construction was used.

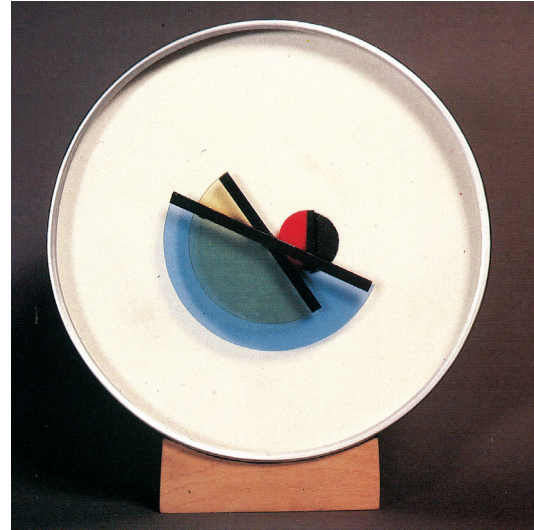
All of Munari's works therefore involve an easily-repeatable process, because his poetic, cognitive and executive processes were all well explained. Perhaps it is also because of this intrinsic didactic aspect that Munari has long been copied – to the extent that many of his linguistic inventions have become the common heritage of contemporary visual language.

Some may see this attitude as a sort of utopian approach, and perhaps a little too ideological, but for Munari, who from the very beginning engaged with the notion of mass-produced works possessing an aesthetic function<sup>26</sup> – as with his *Flexy* (1968), produced in a cheap, unlimited edition for the Italian company Danese – the intention was to address a new, attentive, intelligent and open-minded audience, one capable of reading in the creative processes described a paradigm to be applied in other and different creative contexts. To share knowledge rather than to preserve a separation between artist and audience, to democratise the art world, to make the creative act transparent, to take the creative artist off his or her pedestal, to define the artist's new social role,<sup>27</sup> are all goals that can be traced back to the fertile and iconoclastic thinking of the Futurist movement, sensitive to changes in society. These were to find their most complete theoretical expression during the post-war years of Italian economic development in the formulation of a 'synthesis of the arts': a multidisciplinary convergence between industry and art, artists and designers, and graphic designers and architects, all engaged in solving problems relating to aesthetics, visual communication, lifestyle and functionality. 'Well, I would like to propose that the artist to return to the craft of art, which today is naturally not what it once was. Today, the public looks for beauty in a poster, a book cover, the decoration of a shop-front, the colours for its homes, or the shape of an iron or a sewing machine. [...] Think how much there is to do, how many objects, how many things await

<sup>26</sup> In 1945, using the mechanism of a clock, Munari designed the kinetic 'multiple' *X Hour* that was reproduced in 1963 by the Danese company of Milan. Munari participated in the exhibition 'Multiplication of Transformable Art' at the Parisian Edouard Loeb Gallery in November 1959 alongside Rot, Mari Mack, Agam, Tinguely, Albers, Man Ray, Duchamp, Bury, Soto and Vasarely. In December of that year Daniel Spoerri presented the multiples of the Edizioni MAT (Multiplication d'Art Transformable) with works by Duchamp, Munari, Tinguely, Vasarely and others. In 1960 Munari organised the first group exhibition in Italy on the subject of the multiple entitled 'Mat



*X-Hour*  
1963



the artist's intervention. Leave the studio and look around: how many colours are out of tune, how many shop windows could be more beautiful, how many signs are of bad taste, how many clumsy plastic forms there are. Why not intervene?'.<sup>28</sup>

At this point it is important not to misunderstand Munari when he 'narrates' his own works, not to add poetic intent to his projects or descriptions of processes, and not to confuse works of art – or the serial production of aesthetic objects – with works of industrial or graphic design.

### **Low-cost Munari**

Munari is an artist that we can without doubt define today with the term 'low-cost'. Throughout his career he created works of art from the cheapest materials. From the *Useless Machines* of the 1930s, made from wooden sticks, cardboard, fishing twine, blown glass and other unusual materials such as the hull of a pumpkin, Munari always favoured 'poor' materials, since his art was never predicated on the basis of impressing the viewer by means of an excessive ornamentation, the luxuriousness of the materials employed or high production costs that would be able to justify an equally high sales price.

Instead, Munari always tried to obtain the maximum with the minimum. Whether this took the form of intensely poetic environments created by using ordinary wire mesh (in the case of the *Concave-convex* 'cloud' of 1946), micro-compositions made with discarded materials such as scraps of colored plastic, cotton thread, onion skin, tissue and the like, sandwiched together in the frame of a slide (*Projected paintings*, 1950), *moiré* patterns obtained by the means of the refraction of evanescent waves caused by the fall of five drops of water (as in his fountain of 1965), or by using photocopied images, rocks collected on the beach, sculptures made with folded

Edition - Works of Animated and Multiplied Art' at the Galleria Danese. In January 1967 he presented his solo exhibition 'Serial Works 1958 to Today' at the Galleria Vismara, Milan, and in 1968 he published 'What are Multiples' in response to a request by Armando Nizzi of Brescia's Galleria Sincron, which was later republished in B. Munari, *Codice Ovvio*, op. cit., pp. 89-90.

27 B. Munari, *Design as Art*, op. cit., p. 25.

28 B. Munari, 'L'arte è un mestiere fatto a regola d'arte', in *AZ arte d'oggi*, vol. II, no. 1, January 1950, p. 1.

paper, and so on, Munari's works always involved very low – almost non-existent – production costs.

No longer large, expensive paintings offering few linguistic innovations but only the prestige of an easily recognisable status for the owner who showed them off in his living room like trophies, but rather works that are light, easily to disassemble, transportable (Munari was always preoccupied with ease of transportation), foldable and reproducible.

An example of this approach is the minimal installation *Concave-convex*, realised in Milan in 1948 at the Galleria Borromini, presented again by the artist at a solo exhibition which the city of Milan dedicated to him in 1986, and which is now able to be seen at the Estorick Collection.

Brief instructions explain how to create its characteristic cloud shape,<sup>29</sup> for the work is comprised solely of a sheet of wire mesh, a length of fishing line and some lamps to illuminate it. The structure is hidden; the simplicity is amazing.

Other aspects of the work make it equally fascinating: its natural shape, its movement, the use of light, the work's airy quality, its design, unpredictability and, of course, the simplicity of its installation.

To these characteristics must be added others which are no less important: the aforementioned low production and installation costs, its reproducibility (the work is constructed from a square template that is easily adaptable to mass production) and its freedom from packaging and clutter (the piece being easily transportable). The end result is a work of art created from almost nothing: a lesson in simplicity that is in contrast with the prevailing cliché that defines as important only what is expensive – often artificially so – and not vice versa, or which becomes expensive over time.

## **A Behavioural Model**

Throughout his long career Munari never intentionally interested himself in the art market and never adopted those strategies that are rooted even in today's young artists, aiming to endow their works with artificial value. Why?

I believe, as so often happens with highly complex phenomena, that there is no single answer to this question, and that heterogeneous factors relating to both the artistic and commercial contexts are of significance in this respect: a superficial attitude on the part of critics in relation to an artist too complicated to be studied in a hurried manner; the lack of a consistent and instantly recognisable style; a quality of understatement to the point of simplicity that is often misunderstood or even devalued; and a total independence from the rites and obsessions of the market, pursued with theoretical conviction rather than a spirit of contradiction; a paradigmatic lack of interest towards the culture of sales and consumption as ends in themselves.

I am convinced that among Munari's qualities and defects one in particular cannot be attributed to him: ingenuousness. Why, then, did he consistently – and firmly – refuse to engage with mercantile logic throughout the course of his long career?

Perhaps the most convincing explanation is that which concerns Munari's consistency of thought and action – something that can be seen as a behavioural model and that might, eventually, be considered as something to

29 B. Munari, *Il quadrato* (Milan: Scheiwiller, 1960), pp. 20-21.

be appreciated. As in every successful attempt to educate others, coherence of attitude is worth more than a thousand words, enabling one to be more effective, valued and even emulated.

In a world where the artist increasingly resembles the manager of a factory, where the work-object is artificially made unique (so as not to be confused with a novelty from the gift shop), but at the same time produced in commercial quantities in order to satisfy constant, increasing incentives offered by the market; in a world where the ability to surprise the mind seems almost to have vanished forever, replaced by the now inflated capacity – more apparent than real – to provoke at any cost, what sense is there in pursuing one's own creativity, imagination, or poetry?

In contrast to what has often been stated, Munari probably did not express the last spasms of freedom of a certain artistic tendency defined as the last avant-garde,<sup>30</sup> and whose funeral was constantly anticipated, or perhaps even awaited and invoked, but rather a concrete way of demonstrating that another road is possible and that true freedom (or internal revolution) is determined by a coherence of thought and action.

To be able to be free in the artistic sphere Munari worked as a graphic artist, graphic designer, designer, writer, theorist, visiting professor, the curator of both literary editions and exhibitions, and many other roles besides. He carried out his work in many of these areas with professional excellence, as is shown by the many awards and accolades he received.<sup>31</sup> By contrast he was rather careless with regard to his earnings in the world of art, in which thought and creativity had to remain independent of any influence, including that of economic concerns, in order to express with total autonomy that aesthetic under analysis in the present exhibition in all its revolutionary novelty.

### **A Futurist Italian?**

Perhaps Munari can also be considered as the Futurist model of an Italian.

With his gentle manner, his understatement, his humour – light as a spring breeze – and his positive thinking, Munari represents the kind of Italian that all his compatriots would love to have internalised, at least partially. Dryness, irony, action understood as a process of learning, fun, imagination, multi-disciplinary knowledge, essentiality, rejection of cliché, fanciful attitudes: all these traits make Bruno Munari a contemporary, almost inimitable, character who compels us to think differently, to try and *see the rainbow in profile*, to understand that sunrise and sunset are the same phenomenon, seen from two opposing perspectives.

In an Italy existing in a perpetual state of vacillation between conservatism and adaptability – the *conditio sine qua non* for survival in a ever-more rapid global era – the lightning-fast, fluid, light and creative thought of Munari reflects a very contemporary personality, almost an icon of the best that Italy has managed to produce in the past century.

More than an artist of the twentieth century he seems an icon of tomorrow. An Italian of the future – that is, a Futurist.

<sup>30</sup> L. Vergine, *Arte programmata e cinetica* (1853-1963). *L'ultima avanguardia* (Milan: Mazzotta, 1983).

<sup>31</sup> Compasso d'Oro for design, 1954, 1955, 1979 and 1995 (career achievement); Honourable Mention, Academy of Sciences of New York, 1974; Andersen Prize, 1974 (Best Children's Author); Japan Prize, Design Foundation, 1985 ('for the pronounced human value of his design'); Lego Prize, 1986 ('for his exceptional contribution to the development of children's creativity'); Premio Accademia dei Lincei, 1988 (for graphics); Honorary Member, Harvard University, Cambridge, MA.; Laurea ad honorem in Architecture, 1989, Università degli Studi, Genoa.