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## Re-search, Re-enactment, Re-design, Re-programmed Art

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**ABSTRACT:** Kinetic and programmed art has been a trend of contemporary arts that flourished in the 1950s and 1960s. Kinetic artworks often incorporated technology, at that time still immature, and involved the audience in the production of visual, sound, and somatic effects. Gruppo T was the pioneering group at the forefront of this groundbreaking vision of art as reproducible, participatory, and interactive. Through an action research project and the methodological tool of reenactment, a group of researchers, designers, and artists has proposed an alternative way to conserve Gruppo T artworks. The project 'Re-programmed Art: An Open Manifesto' originated from the ephemeral and experimental features, as well as fragility, of the works by Gruppo T — that is, from the difficulties of practice, conservation, technology, and market that have confined them for far too long to the margins of mainstream art history. We conceive reenactment not just a mere restaging but as re-designing, re-thinking, updating, and re-programming a series of works by Gruppo T.

**KEYWORDS:** open design, programmed art, Gruppo T, preservation

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# Re-search, Re-enactment, Re-design, Re-programmed Art

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At the end of the 1950s, Bruno Munari and Umberto Eco both worked for the Italian publishing house Bompiani. Munari had just shown *Direct and Polarized Light Projections* at the Museum of Modern Art in New York, and his *Travelling Sculpture* at Bruno Danese Gallery in Milan. Thus, he was investigating the dematerialization of the artwork as well as its portability, thinking about artefacts that speculate on multiplication rather than authorial action without foreseeing the geo-political and geo-cultural expansion of our hypermodernity — or perhaps just anticipation of what would have happened later on. Eco had not yet become the acclaimed author of *The Name of the Rose* (1980) and other successful novels. He had not yet written his crucial text, *The Open Work* (1962). He was the pre-semiotic Eco, once defined as ‘an aesthetician with antennas’.<sup>1</sup> He was then working at the national radio and television public broadcasting network in Milan. Situated on the second floor, his office was the studio of musical phonology, directed by Luciano Berio and Bruno Maderna, the two pioneering inventors of electronic music.

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1 Giovanni Anceschi, ‘How Programmed Art Was Born’, in *Arte riprogrammata. Un manifesto aperto. Reprogrammed Art: An Open Manifesto*, ed. by Serena Cangiano, Davide Fornari, and Azalea Seratoni (Milan: Johan and Levi, 2015), pp. 74–79 (p. 77).

Together with Munari, Eco was curating the editorial contents of *Almanacco Letterario Bompiani*, an annual publication dedicated to what was considered a crucial and future-oriented issue. The name 'Arte Programmata' (Programmed Art) was coined on this occasion. The expression appears in the table of contents on page 3, and it was used to define a group of works, of 'drawings and paintings', as specified below, by Giovanni Anceschi, Davide Boriani, Enrico Castellani, Gianni Colombo, Gabriele Devecchi, Karl Gerstner, Enzo Mari, Munari, Dieter Roth, Jesús Rafael Soto, and Grazia Varisco. However, they were not really drawings and paintings.

The *Almanacco*, published in 1962 but edited already in 1961, was titled 'Applications of Calculators to Moral Sciences and Literature'. The terminology sounds rather clumsy and antiquated. The words that are now so necessary for describing the contemporary age — 'computer', 'digital', 'virtual' — were quite out of the remit of the common lexicon of the early 1960s. The title appeared on the cover designed by Munari, who was in charge of the graphic design for the entire publication. In the background, there is a coloured photo provided by IBM — who, together with Olivetti, gave their support for this initiative — between a stripe of perforated cards and an artwork by Colombo: a programmed graphic.

Colombo, together with Anceschi, Boriani, and Devecchi, had founded Gruppo T just three years prior: Varisco joined the group immediately after. Indeed, the works by Gruppo T, among the other authors involved in this publication, are those waiting for the technology to mature to be implemented.

While Eco was gathering the content for *Almanacco*, he turned to Munari and said: 'For literature, we're good: there is *Tape Mark One*, the electronic poem invented by Nanni Balestrini. But for the arts, we've got nothing.' To which Munari is said to have replied: 'Look, I've just met a group of young artists, Gruppo T, that I think are on-the-ball and available. Let's try asking them.'<sup>2</sup> This led to a meeting where the proposal was put forward to create works 'built according to cybernetic criteria.'<sup>3</sup>

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2 Ibid., p. 75.

3 Davide Boriani and Giovanni Anceschi's oral testimony, given to the authors.



Figure 1. Cover of *Almanacco Letterario Bompiani*, 1962.  
From Giovanni Anceschi Archive.

In other words, the idea of programmed graphics was, so to speak, ‘commissioned’ by Munari and Eco for the members of Gruppo T to execute. The idea was then presented on the pages of the *Almanacco*, accompanied by an extraordinary essay by Eco called ‘The Form of Disorder’.

Munari and Gruppo T had met just before the exhibition ‘Miri-orama 1’ (1960). The story of this first exhibition by Gruppo T deserves a retelling, since it is not yet considered as paradigmatic in the history of twentieth-century art exhibitions as it should truly be. First of all, the name ‘miriorama’ means ‘infinite visions’ (from the Greek *orao*, ‘see’, and *myrio*, which means ‘ten thousand’, that is, a virtually infinite amount). Moreover, ‘miriorama’ also refers to an optical toy that was quite popular in the nineteenth century, involving the display

and rearranging of a set of illustrated cards depicting, for example, a landscape. 'Miriorama 1' would be the first 'manifestation' — a term that the artists preferred to 'exhibition' — in a series of such events numbered from 1 to 14, in order to stress the continuity of this collective program that would orient their artistic efforts for several years. The fourteen 'Miriorama' exhibitions were accompanied by graphically impeccable catalogues, more like a series of published books, with essays by Munari, Lucio Fontana, and Shuzo Takiguchi (one of Japan's leading cultural figures, who had introduced Surrealism to Japan), a combinatory poem by Nanni Balestrini, and, naturally enough, writings by the artists themselves.

'Miriorama 1' was a group show and consisted of four highly experimental works by Gruppo T. *Pittura in fumo* was a transparent display board on which an image produced by carbon dioxide fumes was altered by puffs of air. *Superficie in ossidazione* consisted of a copper surface on which haloes of variable colours appeared, due to the polarization caused by a heat source. *Superficie in combustione* involved an electric burner at the back of the work, which heated a sheet of polyethylene with a geometric grid printed on it; the sheet gradually became deformed, and an ulceration formed on the surface. Under the effect of the heat, the plastic melted and then started to burn, until the work literally fell apart. Gruppo T members enjoyed telling the joke that the work had gone from Vasarely to Burri. Lastly, *Ambiente a volume variabile*, nicknamed 'Grande oggetto pneumatico' by Munari, consisted of seven pipes made of transparent plastic, forty centimetres in diameter and six to eight meters long, which, jerking into action due to the compressed air inside them, expanded into the environment, arranging themselves into different patterns. Air was alternately pumped into the pipes and sucked out, making them jerk forward or recoil and forcing the audience out of the room. *Ambiente a volume variabile*, designed and mounted between late 1959 and early 1960, and frequently restaged, was Gruppo T's first environment.

The artists' research on environment, through which they developed and matured the ideas found in their initial works, would resume in 1964, when a new form of collaboration was launched that would commit two or three of the artists in the group at a time to a specific project. The formula would persist even after 1968, the final year

that the group produced a collective artwork, their *Percorso dinamico ad ostacoli programmati*, in Grenoble.

The four works by Gruppo T constituted the second part of the exhibition. The first part consisted of texts, reproduced images, and original works by those artists whom the group considered their precursors, forming a virtual genealogy of the topic of time in contemporary art: a kind of essay in images.

The words of this essay were taken from the writings of historic avant-garde manifestoes (by the likes of Paul Klee, Wassily Kandinsky, Umberto Boccioni, Lucio Fontana, Giacomo Balla, and Fortunato Depero), while the images were borrowed from artists who were para-kinetic or proto-kinetic, such as Alexander Calder, Constantin Brancusi, Naum Gabo, Nikolaus Pevsner, and Marcel Duchamp. This theoretical and critical background was rounded out by the original works of friends of the group, all of which hinged on the notion of time: *Concetto spaziale* by Fontana (the 'gestural time' of execution), *Meta-Malevich* by Jean Tinguely (time being mechanically modified), *Specchio rotto* by Enrico Baj (the time represented by the viewer's interaction), *Linea* by Piero Manzoni (time frozen in the concept), and lastly, *Macchina inutile* by Munari ('varying spaces in time'). For this initial part of the exhibition, the members of the group seemed to wear two hats: that of the artist and that of an eclectic figure who acted as critic, theoretician, cultural organizer, and curator all at once. An artist who was first and foremost an intellectual.

At that time, the members of Gruppo T were not personally acquainted with Munari, and they went to his studio to borrow his *Macchina Inutile* for 'Miriorama 1'. He was pleased to lend the work and found out only during the opening of the exhibition that he was a role model for these artists. From that day on, Munari's collaboration and friendship with Gruppo T grew stronger and resulted in many collaborative exhibitions, up until the show 'Arte Programmata', which featured works by Enzo Mari, Gruppo T, Gruppo N, and Munari himself, and was organized at the Olivetti showroom in Milan in 1962.

As Eco wrote in the catalogue, 'it takes years to understand the significance of an event, it is all part of the logic of history. Time itself creates its own legends and perspective is what sharpens the outlines



Figure 2. Gruppo T at work in Varisco's workshop, Milan 1962.  
Courtesy of Grazia Varisco Archive.

of things and takes their measures.<sup>4</sup> To understand why Gruppo T was ahead of its time, we have had to wait for the advent of the IT revolution and the emergence of concepts such as immersivity and interaction, as well as the use of increasingly refined technologies by artists. In this day and age, it is the very notion of time that has become urgent. After all, it is clear how difficult it must have been for contemporary audiences to read, understand, and accept Gruppo T. Gruppo T had set itself up as an entity that superseded the romantic idea of the individual artist who acts alone. Instead, Gruppo T's behavioural model was more akin to that of scientists carrying out research projects: sharing the results with the public but responsibly acknowledging its role.

Gruppo T offered artworks to the audience that moved, works that represented the continuous flow of the world. We can define these works as fields of happenings. They rejected the passivity of contemplation in favour of active participation by the viewer; for example, in *Scultura da prendere a calci* by Gabriele Devecchi (1959), several modules of synthetic sponges, which formed a regular square shape,

4 Umberto Eco and Bruno Munari, *Arte programmata. Arte cinetica. Opere moltiplicate. Opera aperta* (Milan: Officina d'Arte Grafica Lucini, 1962), p. 5.



Figure 3. Gabriele Devecchi and *Scultura da prendere a calci*, 1959.  
Courtesy of Gabriele Devecchi Archive.

were connected to each other and a base by elastic bands. They could be kicked at so that they broke up in the air and composed an unpredictable new plastic configuration in a different spatial arrangement: a sculpture that was not meant for contemplation by any means. Instead, its distinctive aesthetic features were the interaction with the body of the beholder and the fate of being worn out over time by usage.

At the time, it was difficult to accept an aesthetic activity that urged the viewer to ‘move, touch and feel’. Gruppo T said, ‘We shall shape the viewer along with the work.’<sup>5</sup> The group championed the production of

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5 Preliminary manuscript version of *Dichiarazione Miriorama 1* (Miriorama 1 Declaration), Archivio Giovanni Anceschi, Milano.



artworks that triggered the experience of the audience, using devices that involved their bodies and their behaviour. The group's enthusiasm for technology was ironic and provocative. It was instrumental in achieving the effect they sought: in reminiscence of Baroque Art, a sort of enchantment in front of an unexpected phenomenon that endlessly regenerated itself.

Their artworks were designed to be serially produced. Their oeuvre was light years away from the commodity fetishism of the art market. The idea underlying their work was that these were objects that anyone should be able to construct and reproduce at any time. Gruppo T imagined 'aesthetic creations that anybody could build'.<sup>6</sup> One particular episode exemplifies this concept: when Anceschi saw Colombo's *0 ↔ 220 Volt* for the first time — an extraordinary work made of two opaque incandescent light bulbs, of which the brightness is steadily alternated from a minimum to maximum intensity to create a sort of continuous counterpoint — it was love at first sight and he begged Colombo to give one to him, to which Colombo replied: 'Make it yourself!'<sup>7</sup>

As it turned out, Gruppo T was written out of the official history of art until the dawn of the new millennium. It is only now that an international cultural reappraisal is taking place and Gruppo T is being rediscovered, as is Programmed and Kinetic Art in general, and the debt of the present-day art scene to these precursors is being acknowledged. It is not only the art world that has sought out the group after such a long time. Our own mobile, hyper-connected reality, variable and metamorphic as it is, has rediscovered them. The reappraisal of the art and these artists who used words like 'time-space', 'becoming', 'relation', 'variation', and 'participation' as part of their 1960s vocabulary can also be explained by the emergence of a new art and design scene that was born with these same concepts in mind. Precisely in this erratic temporality that complicates linear and teleological models, we can include 'Reprogrammed Art: An Open Manifesto'.<sup>8</sup> In this case,

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6 Gabriele Devecchi, *A proposito delle ipotesi Miriorama, Arte programmata e cinetica 1953/1963. L'ultima avanguardia*, ed. by Vergine Lea (Milan: Mazzotta, 1983), p. 168.

7 All quotations by Giovanni Anceschi from conversations with the present authors.

8 'Re-programmed Art: An Open Manifesto' is a project coordinated by Serena Cangi-ano and Davide Fornari, with the collaboration of Azalea Seratoni, promoted by the

the 're' of the title does not indicate a repetition but a form of return that interweaves materials from different disciplines, including design, art history, and interaction design. The conceptual framework evolves around words such as 'interaction', 'reproducibility', 'memory', 'multiplication', 'reflection', 'reenactment', 'conservation', 'action-research', and 'open source technologies'.

The group of artists and designers involved in the project had the task of reprogramming a number of works by Gruppo T. The concept of 'reprogramming' is about more than just reconstructing the original works, understanding how they were made, and mastering the algorithms used to incorporate an element of chance. It means bringing them to life again, using new materials and technology. Starting from the works of Gruppo T, new open artworks were realized, new prototypes of kinetic and programmed works inspired by their creations. These new artefacts would translate the main principles of Programmed Art into the codes of contemporary culture, following the tenets of peer production, namely open source hardware, software, and digital fabrication technologies. They can now be reproduced, expanded on, and completed by other users.

The project 'Re-programmed Art: An Open Manifesto' was originated exactly from the idea that art can be interactive, shared, and reproduced, as well as from the ephemeral and experimental features and the fragility of the works by Gruppo T. They cannot be photographically reproduced in their becoming. Their fragility is constantly disclosed by the failure of mechanisms. The artists were forced to narrate, to describe the effects that they would have shown if the mechanisms had worked.

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Laboratory of visual culture of SUPSI – University of Applied Sciences and Arts of Southern Switzerland, in partnership with Museo Alessi, Archivio Gabriele Devecchi, Archivio Gianni Colombo, Arduino, ECAV – Ecole cantonale d'art du Valais, SGMK – Swiss Mechatronic Art Society, and WeMake. The project was developed in the context of 'Viavai – Contrabbando culturale Svizzera-Lombardia', a program of binational exchanges promoted by the Swiss Arts Council Pro Helvetia and realized in partnership with the Cantons Ticino and Wallis, the City of Zurich, and the Ernst Göhner Foundation, and under the patronage of the Arts Councillorships of the Region Lombardy and of the Municipality of Milan. The project is supported by Migros Culture Percentage. The entire project is documented at <<http://www.reprogrammed-art.cc>> [accessed 20 November 2020] and through *Arte riprogrammata. Un manifesto aperto. Reprogrammed Art: An Open Manifesto*, ed. by Serena Cangiano, Davide Fornari, and Azalea Seratoni (Milan: Johan and Levi, 2015).

By thinking about the difficulties in practice, conservation, technology, and market, which confined Gruppo T for far too long to the margins of mainstream art history, and through the methodological tool of reenactment, 'Re-programmed Art: An Open Manifesto' elaborates on a crucial episode of the twentieth-century history of art.

The project proposed not only a *re-staging* or a superficial *re-construction*, but a *re-design*, *re-thinking* and *re-programming* of the experience of Gruppo T, which seemed outside the bounds of any pre-existing scheme and any possible definition, because of the group's remarkable foresight in deliberately choosing to operate on this particular and difficult frontier between art, science, and design.

Serena Cangiano, Davide Fornari, and Azalea Seratoni, 'Research, Re-enactment, Re-design, Re-programmed Art', in *Over and Over and Over Again: Reenactment Strategies in Contemporary Arts and Theory*, ed. by Cristina Baldacci, Clío Nicastro, and Arianna Sforzini, *Cultural Inquiry*, 21 (Berlin: ICI Berlin Press, 2022), pp. 141–50 <[https://doi.org/10.37050/ci-21\\_15](https://doi.org/10.37050/ci-21_15)>

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## REFERENCES

- Anceschi, Giovanni, *Dichiarazione Miriorama 1* (Miriorama 1 Declaration), Preliminary manuscript version, Archivio Giovanni Anceschi, Milano
- 'How Programmed Art Was Born', in *Arte riprogrammata. Un manifesto aperto. Reprogrammed Art: An Open Manifesto*, ed. by Serena Cangiano, Davide Fornari, and Azalea Seratoni (Milan: Johan and Levi, 2015), pp. 74–79
- Cangiano, Serena, Davide Fornari, and Azalea Seratoni, eds, *Arte riprogrammata. Un manifesto aperto. Reprogrammed Art: An Open Manifesto* (Milan: Johan and Levi, 2015)
- Devecchi, Gabriele, *A proposito delle ipotesi Miriorama, Arte programmata e cinetica 1953/1963. L'ultima avanguardia*, ed. by Vergine Lea (Milan: Mazzotta, 1983)
- Eco, Umberto, and Bruno Munari, *Arte programmata. Arte cinetica. Opere moltiplicate. Opera aperta* (Milan: Officina d'Arte Grafica Lucini, 1962)