The Image as Reaction. Nuclear Painting and Architecture, Italy 1951-1958*

Stefano Setti

PhD Candidate, Catholic University (Milan), History of Contemporary Art. stefano.setti@unicatt.it

MA Degree in History of Modern Art at the Catholic University (Milan) and post-Master Degree at the University of Bologna (Historical-Artistic Heritage). The attention of his studies has always been focussed on investigating the relationship between Art and Architecture, firstly treating the Italian Renaissance and then Contemporary Art.

ABSTRACT

The last act of World War II took place in the Summer of 1945 with the explosions of the atomic bomb. Despite the fact that these events took place far from the "old continent" some European artists were deeply affected by the power of the atomic instrument and they meditated on a possible future dominated by a nuclear manipulation capable of redefining "the representation of man and his space". The goal of this paper is two-fold: firstly to analyze some specific aspects of artists who belonged to the "Movimento Arte Nucleare" and their affiliation with architectural practices, together with their 'dialogue' with the "International Movement for an Imaginist Bauhaus"; and secondly, to introduce the figure of the Nuclear Architect, Enzo Venturelli, in order to describe an original panorama based on the alliances and contaminations between diverse disciplines associated by the sensitive attention paid to the planning of the future and the rejection of Rationalist Architecture.

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While Italy was preparing its exit from the Second World War the magazine Domus, in 1944, published an article by Bruno Munari that proposed the question of what "style" in architecture would have characterized the years to come, convinced that the new approach would be derived from technological discoveries and, in particular, from the aerodynamic form.¹ As had already happened long before, at the dawn of a new age that began with the end of the war, also Munari bet on a different development for modern architecture which he preferred not to describe but to represent by way of a graphic sign of surreal suggestiveness. From among the many others, the prediction by Munari that was so lucid and lacking in mediations can here be taken as a starting point for the events that I shall discuss precisely because he correctly "guessed"² an orientation that artistic-architectural culture appropriated starting from the latter postwar period also as a reaction to the former tragic events. The visual arts and pictorial language, expressions that were apparently so distant from tectonics, contributed towards reformulating a renewed idea of space and architecture, soliciting and in certain cases superimposing themselves on the research works of the more conformative construction lexicon by way of exchanges which within the context that we shall observe proved to be extremely close. The focus of this intervention is two-fold. Firstly we shall examine the proposals of some Italian artists who in the disarming power of the atomic explosions of 1945 acknowledged the presuppositions for imagining a possible and habitable future as was the case of the "Movimento Arte Nucleare" whose research was initially begun by painters but which was soon also developed by architects. In the second part of this essay, in line with these premises, we shall have the opportunity to introduce and critically rediscover the nuclear architect Enzo Venturelli with the aim of furnishing an extensive and original panorama based on the alliances and contaminations between diverse disciplines associated by means of a sensitive attention to a new ideal of planning. The keystone between this first aspect and the one centred upon a renewed idea of architecture was to be offered by a close dialogue which the protagonists of the nuclear movement established with the nascent "International Movement for an Imaginist Bauhaus" endorsed by the Danish artist Asger Jorn.

"Danger Public"3

At the Galleria San Fedele in Milan in 1951 the painters Enrico Baj and Sergio Dangelo exhibited a series of works defined by the critic Kaisserlian as being "nuclear paintings".⁴ In a distinct way the term had already been used in 1950 by the futurist painter Fortunato Depero who in some excerpts of his "manifesto of nuclear plastic and painting" opened himself to some important considerations that were ideologically in harmony with the new movement: "The atomic and nuclear marvels, the aerodynamic, 1. Bruno Munari, "Come sarà il nuovo stile? Ragione e fantasia si alterneranno al timone dell'ispirazione," *Domus*, no. 194 (February 1944): 64-65. 2

2. Carlo Perogalli, Aspetti dell'architettura contemporanea. Cronache, temi, tendenze (Milan: Libreria A. Salto, 1952), 90.

3. From the Manifesto Danger Public / Argument Manifeste, published for the exhibition Mostra di dicembre: Dangelo, Baj, Colombo Mariani. Milan, Galleria dell'Annunciata and Saletta dell'Elicottero, December 16, 1952 – January 6, 1953.

4. Baj e Dangelo. *Pittura nucleare*. Milan, Galleria San Fedele, November 1951.

underwater, terrestrial and stratospheric forces ought to cause to meditate and reflect on the part of the technicians, creators and judges of Art and Aesthetics".⁵ For the new artists the name – critically captivating and for this reason supported by literature – arose from a close confrontation with historical actuality and the reference to the atomic explosion allowed the creation on canvas of a compelling correspondence between form and content. In fact, although the subjects were declaredly bound to the contingent themes, on a stylistic level one had the coexistence of so-called informal stylemes and a fantastic rediscovery of reality influenced by surrealist poetics. Notwithstanding the fact that in their writings and manifestoes the reference to technological progress was always present, from the strictly stylistic point of view the nuclear artists in fact remained painters tied to the constructions and sense of the sign and the gesture typical of the day, although detaching themselves from the "personalistic vent" of the informal poetic.⁶ [Fig.1]

If on the large scale the results achieved by physics – also by way of its concrete application - were not insignificant, also in the usual day-to-day work the artists had at their disposition and chose to use innovatory materials (industrial enamels and emulsions of water and pitch) and experimental techniques invented also thanks to a confrontation with modern sciences such as "Heavy water", evidently inspired by the lexicon of nuclear physics, functional towards delineating new geological panoramas in line with a broader international context that in the gesture acknowledged a new energy to apply to the painted canvas.⁷ As was true in physics, the pictorial materiality was disintegrated in order to render those oneiric as penetrating as possible and sometimes distressing, with direct reference to atomic energy.⁸ The consecration of the group took place in 1952, not in Italy but in the Belgian city of Brussels on the occasion of an exhibition held by Baj and Dangelo: this was when they drew up the guidelines of the new-born movement with the publication of the "manifesto of nuclear painting" whose annotation - in a disenchanted way - told the readers that "Truth is not yours. It lies in the ATOM. Nuclear painting documents the search for this truth".9 [Fig. 2] Starting from this point on a succession of exhibitions marked the exhibition course of the group, immediately joined by Joe Colombo and then by Leonardo Mariani, Enzo Preda and Antonio Tullier. The events and vicissitudes regarding the history of the nuclear movement are guite well known and can be followed thanks to both general and specific writings published about it.¹⁰ Even if it proves difficult to establish clear-cut borderlines within the Milanese artistic scene of those years whose proposals were univocally addressed to imagining or foreseeing a plausible future, there nevertheless existed different groupings with relative manifestoes, together with referential critics and gallerists. During the same years one had the cohabitation of the "Spatialists" whose research was aimed at above all aesthetically investigating a cosmic dimension, side by side with the "Nuclear" artists 5. Fortunato Depero, "Manifesto della pittura plastica e nucleare," *Nuovo caffe*. *Rassegna di libera polemica artistico-letteraria* (November-December, 1950): 14; For Depero and the usage of the term: Tristan Sauvage [Arturo Schwarz], *Pittura italiana del dopoguerra* (1945-1957) (Milan: Schwarz editore, 1957), 150-166, 278-285; Tristan Sauvage [Arturo Schwarz], *Arte nucleare* (Milan: Galleria Schwarz], 1962.

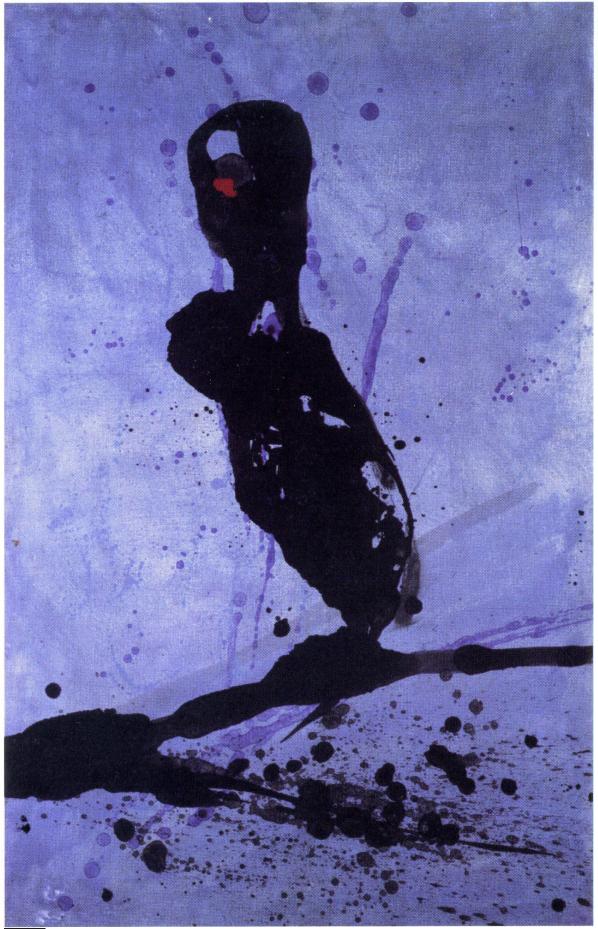
6. Enrico Crispolti, "Lo svolgimento della ricerca di Baj," in Enrico Crispolti and Enrico Baj, eds. Catalogo generale Bolaffi dell'opera di Enrico Baj (Turin: Bolaffi, 1973), VII.

 Alessandra Tibiletti, "Tecnica e materiali nella pittura nucleare. Un'analisi di alcune opere di Enrico Baj, Joe Colombo e Sergio Dangelo nella collezione Boschi-di Stefano," L'Uomo Nero, nos. 4-5, 2006: 479-495.

8. These artists were also inspired by the new pictorical language of the American artists Wols and Pollock, protagonists in two solo exhibitions in Milan respectively in April 1949 at the Galleria del Milione and in October 1950 at the Galleria del Naviglio. With regard to the dripping technique (metaphorically compared by criticism to "atomic fallout"), Pollock declared that he was inspired by the recent events which could not be ignored. Cf. Stephen Petersen, "Forms disintegrate': Painting in the shadow of the bomb," in Okwui Enwezor, Katy Siegel and Ulrich Wilmes eds., *Postwar: Art Between the Pacific and the Atlantic, 1945-1965*, exhibition catalogue (Munich: Haus der Kunst, 2016-2017), 141.

 Baj et Dangelo. Peinture nucléaires.
Bruxelles, Galerie Apollo, March 4-17, 1952. From the French: "Le vérité ne vous appartient pas: elle est dans L'ATOME. La peinture nucléaire documente la recherche de cette vérité".

10. In addition to Sauvage, *Pittura italiana and Sauvage Arte nucleare*, for further detailed studies see: Giovanni Anzani ed., *Arte* nucleare 1951-1957. Opere – testimonianze – documenti, exhibition catalogue (Milan: Galleria San Fedele, 1980); Martina Corgnati ed., Arte a Milano 1946-1959. Il movimento nucleare, exhibition catalogue (Milan: Galleria San Fedele, 1998); and, except Édouard Jaguer, Enrico Baj (Milan-New York: Edizioni Schettini, 1956), the last monographs: Enrico Baj. Opere dal 1951 al 2001, exhibition catalogue (Rome: Palazzo delle Esposizioni, 2002); Martina Corgnati ed., Enrico Baj Opere 1951-2003, exhibition catalogue (Milan: various locations, 2003); Chiara Gatti Chiara and Roberta Cerini Baj eds., Enrico Baj. L'invasione degli ultracorpi/L'invasion des ultracorps, exhibition catalogue (Aosta: Museo Archeologico Regionale, 2016); Francesco Tedeschi ed., Sergio Dangelo. Les Rendez-Vous/The Dates/Gli appuntamenti, exhibition catalogue (Pavia: Spazio Arti Contemporanee, Broletto, 2016); Also see the recent catalogue: Luca Bochicchio, Maurizio Cattelan, Carrie Pilto, Enrico Baj: Play as protest, exhibition catalogue (Ámstelveen: Cobra Museum of Modern Art and Cobra Museum voor Moderne Kunst, 2017).





Enrico Baj, *Figura atomica (Atomic figure*), 1951. Oil on canvas, 100 x 70 cm Private collection

GALERIE APOLLO

24, PLACE SAINTE-GUDULE, 24 BRUXELLES

BAJ et DANGELO

Peintures nucléaires

DU 4 AU 17 MARS 1952

Vernissage mardi 4 mars à 18 heures

MANIFESTE DE LA PEINTURE NUCLEAIRE

LES NUCLEAIRES veulent abattre tous les "ismes,, d'une peinture qui tombe invariablement dans l'academisme, quelque soit sa genèse. Ils veulent et ils peuvent réinventer la peinture.

Les formes se désintegrent: les nouvelles formes de l'homme sont celles de l'univers atomique. Les forces sont les charges électroniques. La beauté idéale n'appartient plus à une caste de héros stupides; ni au robot. Mais elle coïncide avec la représentation de l'homme nucléaire et de son espace.

Nos consciences chargées d'explosifs imprévus préludent à UN FAIT. Le nucléaire vit dans cette situation, que seuls les hommes aux yeux éteints ne peuvent pas saisir.

Le vérité ne vous appartient pas: elle est dans L'ATOME. La peinture nucléaire documente la recherche de cette verité,

> Enrico Baj Sergio Dangelo

FIG. 2 Invitation-Manifesto for the exhibition, Baj et Dangelo. Peinture nucléaires, Brusselles, Galerie Apollo, March 4-17, 1952



FIG. 3

Enrico Baj, *Due bambini nella notte nucleare (Two children in the nuclear night)*, 1956. Oil on canvas, 70 x 100 cm Private collection. Courtesy Fondazione Marconi, Milan

whose investigations were instead immersed in more plausible postatomic scenarios. Whereas the "Spatialists" were subject to the abstract fascination of "lunar landscapes", the nuclear artists described a landscape of the Earth modelled on the deformation of a real space due to the then recent disasters.¹¹ [Fig. 3] In having established this schematic distinction - in many cases disregarded by the artists themselves¹² both were profoundly attracted by technological and scientific advances as being the necessary instruments for hypothesizing possible "scenographies" of the future because space "is no longer a passive container of happenings but space itself takes part in the events", as was underlined by Carlo Cardazzo - promoter of the spatialist artists at the Galleria del Naviglio - on the occasion of the Gianni Prize dedicated to "spatial and nuclear paintings inspired by the atom bomb".13 From the bombs sprang the impulse for rebirth and in the front line it was the artists who zeroed every distinction between the disciplines because with the new means an already present future was attentively planned, one no

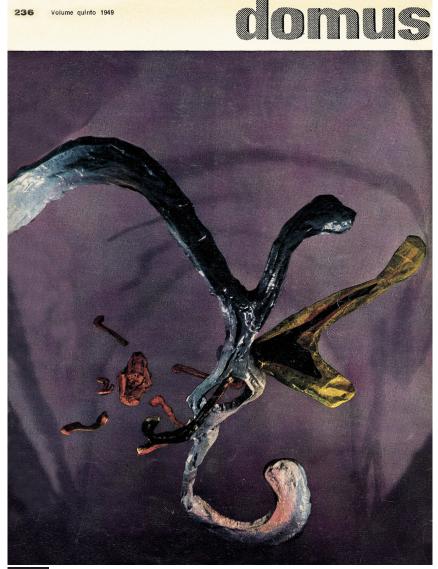


FIG. 4 Domus, no. 233, 1949. Cover with Lucio Fontana's Ambiente spaziale a luce nera (Spatial Environment in Black Light), 1949

11. Cf. Stephen Petersen, Space-age aesthetics. Lucio Fontana, Yves Klein, and the Postwar European Avant-Garde (University Park: The Pennsylvania State University Press, 2009). All of the book is important but relevant for our dissertation is chapter 2: Avant-Garde alienation. Enrico Bai and Interplanetary Art, 103-152; Chiara Gatti, "Enrico Baj: dalla terra alla luna. Paura e fascino dell'altrove," in Gatti and Cerini Baj, Enrico Baj. L'invasione degli ultracorpi/L'invasion des ultracorps, 11-24; For a historical introduction to the spatialist artists see: Giampiero Giani, Spazialismo. Origini e sviluppi di una tendenza artistica (Milan: Conchiglia, 1956). For our dissertation also see Sileno Salvágnini, "Possibili fonti iconografiche nel Fontana degli anni cinquanta," in Silvia Bignami and Giorgio Zanchetti eds., Klein Fontana, Milano Parigi 1957-1962, exhibition catalogue (Milan: Museo del Novecento, 2014-2015), 144-163. In particular see page 154 and relative notes for the debate regarding Spatialism between Agnoldomenico Pica and Giulio Carlo Argan who in differing from Pica acknowledged a correlation between nuclear physics and abstract forms.

12. "Nuclearists" and "Spatialists" were frequently represented in the same exhibitions. Lucio Fontana, always interested in discovering young artists, introduced Nuclear artists to the exhibition: *Peinture nucléaire*, Bruxelles, Galerie Saint-Laurent, 1953. The text by Fontana is now published in Angela Sanna ed., *Lucio Fontana. Manifesti, scritti, interviste* (Milan: Abscondita, 2015), 58

13. In 1952 the Galleria del Naviglio in Milan (Representative Gallery for spatialist artists and managed by Carlo Cardazzo) estabilished an award (Premio Gianni) dedicated in its first edition to the Atomic bomb. The spatialist artist Gianni Dova won the contest with the canvas entitled Nucleare, confirming the close relationship between "Spatialists" and "Nuclearists". See: Carlo Cardazzo, Premio Gianni. 125^ Mostra del Naviglio, exhibition catalogue (Milan: Galleria del Naviglio, 1952); Marco Valsecchi, 'Nucleari e spaziali a confronto," Tempo, July 16, 1953; Paolo Campiglio ed., Gianni Dova, exhibition catalogue (Milan: Galleria II Castello, 2008), 18-20.

longer only controlled by the work of architects who were in their own right involved in an important action of postwar reconstruction. Lucio Fontana was the anticipator of this last aspect and as "father" of the spatialist movement supported the need to appropriate space "by way of new means which technology made available to artists"¹⁴ as he lay claim to in 1951 when invited to take part in the conference titled De divina et humana proportione (IX Triennial of Milan, 1951). He saw the possibility of a modern creative process that combined/associated art and "architecture based on new techniques, technologies and means",15 firmly convinced that the "divine proportion" was set in motion by the concept of modern and future architecture"¹⁶ and that "the conquest of space and the atomic bomb cancel all the theories of modern architects".¹⁷ As an artist Fontana talked in a free and emancipated manner before an audience primarily made up of protagonists of the field of architecture, intrigued by those suggestions which would have closely involved them as happened at the BBPR which in their studio had for years hosted the meetings of the spatialists. Guaranteeing the popularization among those involved in architecture of these "bizarre" theories one had the same architectural magazines which dedicated considerable space to these "extreme" research works as was true on the part of Lisa Ponti in Domus (1949) with an article significantly titled "First graffiti of the atomic age" with reference to the first "spatial environment" by Lucio Fontana presented at the Galleria del Naviglio of that same year. For Lisa Ponti the work was "an example still a little grotesque of what the architects could be able to do by using luminous forms in their spaces, in their perspectives.¹⁸ [Fig. 4] This contributed towards "inverting" the still standardized hierarchy of the arts given that in opposition to what happened in the past for mural (decorative) painting that developed from the "skin" of architecture one now – in an antithetical way – had managed to arrive at architecture by way of exclusively artistic expedients. Notwithstanding the fascination inherent in the desired or called for overcoming of categories, it is however necessary to consider how these discussions regarding new techniques, new technologies and spatial perceptions more easily found their effective development within a theoretical sphere rather than in architectures, even if the latter paid greater attention not only to the way of perceiving spaces but also to the "psychic processes" of the inhabitant as suggested by the protagonists of the visual arts.¹⁹ In a different key, the involvement of the human dimension was a central aspect within the post-atomic panorama as delineated by the protagonists of the "Movimento Arte Nucleare" who, differing from their spatialist colleagues, reasoned on the indisputable predominance of scientific conquests for a new figuration and appropriation of space. Baj maintained how the nuclear theme was "fundamental for our times in all the implications of hope and fear. The call/lure to the nuclear also took on an anti-abstract importance so that the artist, on having abandoned the concept of "art for art's sake", returned

14. Lucio Fontana, *Proposta di un regolamento*, Milan, April 2, 1950. The document which synthesizes the foundamentals of the spatialist movement is now published in Sanna, *Lucio Fontana*, 25-26.

15. Lucio Fontana, Manifesto tecnico, text read during the conference De divina et humana proportione, Triennale di Milano, September 27-29, 1951. Now in Sanna, Lucio Fontana, 27-30. Fontana also said: "On having passed various millennia of its analytical artistic development the moment has arrived for synthesis [...] Colour the element of space, sound the element of time and movement that develops in time and space [...] Architecture is volume, base, height, depth, contained in space, the 4th ideal dimension of architecture is art". Speakers at the conference were also: James Ackerman, Max Bill, Gillo Dorfles, Le Corbusier, Sigfried Giedion, Pier Luigi Nervi, Ernesto N. Rogers, Georges Vantongerloo, Rudolf Wittkower, Bruno Zevi, among others. Cf. Anna Chiara Cimoli and Fulvio Irace, La divina proporzione. Triennale 1951 (Milan: Electa, 2007).

16. In this letter sent by Fontana to Carla Marzoli, curator of the exhibition "Mostra di Studi sulle Proporzioni" during the same Triennale in 1951, the artist confirmed his willingness to partecipate at the conference in order to assert "the possibility to establish the importance of Spatial art in future architecture". Cf. Anna Chiara Cimoli, "Il primo Convegno Internazionale sulla proporzione nelle Arti: una storia interrotta," in Cimoli, and Irace, *La divina proporzione*, 214, note 47.

17. Transcription of the Sketch 51 D TS 7 MTS recto, Milan, September 14, 1951, Milan, Archivio Fondazione Lucio Fontana. Already published in Luca Massimo Barbero ed, Carlo Cardazzo. Una nuova visione dell'arte, exhibition catalogue (Venice: Peggy Guggenheim Collection, 2008-2009), 240.

18. Lisa Ponti, "Primo graffito dell'era atomica," *Domus*, no. 233, 1949: 44. Cf. also Luca Massimo Barbero, "Nero. L'Ambiente Spaziale come straordinaria avventura nella scienza," in Sergio Casoli and Elena Geuna eds., *Fontana. Luce e colore*, exhibition catalogue (Genoa: Palazzo Ducale, 2008-2009), 37-41. Barbero writes: "It's as if the discovery and going into what we now call the post-atomic age had concretely created or caused the need to restart, to reconsider man, his condition on earth, his own position. A beginning that has its bases in the atomic drama but also in its infinite possibilities, in the supercession of the very concept of Humanism".

19. Anna Costantini, "Arte tetradimensionale e maisons passionnantes: la crisi dei presupposti della modernità tra situazionismo e superamento dell'Informale," in Germano Celant ed., Arti e Architettura 1900/1968, exhibition catalogue (Genoa: Palazzo Ducale and surroundings, 2004-2005), 65-68. to establish relationships with the world and with its future".20 Precisely inside some pictorial works the nuclear theme was translated in a violent landscape description - "Paesaggio atomizzato" ("Atomized Landscape"), ultrasonico" ("Ultrasonic Landscape"), "Paesaggio "Esplosione" ("Explosion") – in the search for "real and not 'abstract' worlds",²¹ although as recently noted by Pethersen, these artistic proposals above all during the initial period could only result from imagination, literary suggestions and debates concerning possible genetic mutations given that the photographic descriptions of the recent events which had taken place in the Pacific were in part subject to censorship.²² The protagonist of the new pictorial landscapes was the primigenial aspect besides being "element in movement" that was openly polemical with respect to abstraction, distant from mankind therefore incapable of responding to a "Danger Public" (Public Danger), as the nuclear manifesto of 1952 was ironically titled. In the first Brussels manifesto the nuclear artists confirmed that "The forms disintegrate: the new forms of mankind are those of the atomic universe; the forces are electronic charges. Ideal beauty is no longer the property of a stupid hero cast, nor of the robot. But it coincides with the representation of nuclear man and his space". As proposed by the nuclear painters a space certainly not made architectural but which mirrored the expectations of that precise moment "oscillating between the enthusiastic exaltation and reflective dismay with respect to the indisputable rule of science".23 [Fig. 5] A duality well represented by that fetus - here human iconography is recurrent, together with skulls,

20. Enrico Baj, Movimento nucleare, now in Angela Sanna ed., Enrico Baj. Ecologia dell'arte (Milan: Abscondita, 2013), 171 (sub voce).

21. Leonardo Borghese, "Arte nucleare," Corriere della Sera, November 24, 1951. "Painters [...] of mysterious marine depths, of geological strata, of celestial meteors and rings of Saturn, of spatial abysses and infinities, of crystals, of radiological introspections, of spectra and rays and vibrations etc., etc.; and finally of visions or "sensations' or 'nuclear emotions".

22. Stephen Petersen, 'Forms disintegrate', 140-145.

23. Antonello Negri and Carlo Pirovano, "Esperienze, tendenze e proposte del dopoguerra," in Carlo Pirovano ed., *La pittura in Italia. Il Novecento/2* (Milan: Electa, 1993), 120.



Enrico Baj, Senza titolo (Untitled). Lithography Published in Jaguer Édouard. Enrico Baj (Milan-New York, Edizioni Schettini 1956)

galvanized bodies and anthropomorphic investigations²⁴ - roughly outlined like an atomic mushroom cloud and reproduced in the "Bum manifesto" drawn up on the occasion of the third exhibition of nuclear art organized in the rooms of the Associazione Amici di Francia in Milan in the Spring of 1952. [Fig. 6] Even though in general there existed a pronounced attention paid to scientific representation, testified to for example by some precise in-depth investigations,25 for the Spring exhibition of the nuclear group Kaisserlian specified how the interest of these painters regarded the ability to grasp those atomic consequences which the scientists "do not care to 'see' [and] which perhaps only the artist is able to extend or prolong in view of powers of action that science offers us" given that "Matter has more imagination than we do [...] and nuclear painting wants to be the intuitive



G. 6 Enrico Baj, Manifesto Bum (Bum Manifesto), 1997. Remake from the original of 1952. Acrylic paint and oil on canvas, 100 x 90 cm Private collection. Courtesy Fondazione Marconi, Milan

vision of a world in which matter becomes energy that indefinitely reproduces itself [...] What can be born tomorrow from an uninterrupted dialogue with nuclear reality?"²⁶

The Nuclear City

The post-atomic scenarios became the occasion for imagining a "prefiguration" of the future given that "To destroy and be reborn are actions that are almost combined in time".27 As has in part been seen in the previous paragraph, different conditions looked for by painters took on connotations close to those of architectural research in its more general aspect. The intentions of the nuclear artists were to look for new iconographies not necessarily for a space of dangers but for a space of possibilities where human presence and the surrounding nature would not have been adapted but modified: a capability proximate to the principle of resilience, a term become the protagonist in the lexicon and theories of town (urban) planning precisely in referring to the transformation of a place following expected or sudden – and often traumatic – events.²⁸ In a Milan engaged in thinking and reconstructing the urban fabric, Joe Colombo, a component of the movement beginning from 1952, hypothesized urban scenarios for a new atomic era.²⁹ If his first activity fully retraces the tendencies of the movement with the interest to register on the canvas "exploded" compositions, landscapes lacking in geometry,

24. "[...] New bodies charged with energy, lights that will be neons, surreal arabesques of incandescent and dripping colour that seem to disintegrate rather than obey the spreading of the usual and sometimes too loving hand of man. This reaction constitutes the palpitating testimony of the atomic experience in its reflections on the sensitive world; for new human experiences Baj and Dangelo with humble and patient research find new language". Dino Fabbri ed., Baj e Dangelo, exhibition brochure (Milan: Galleria San Fedele, 1951).

25. See for example the drawings by the spatial artist Mario Deluigi, in particular *Studio dell'atomo*, published in Barbero, "Nero. L'Ambiente Spaziale," 39.

26. Georges Kaisserlian, *Arte Nucleare. Baj, Dangelo, Colombo*, exhibition brochure (Milan: Associazione Amici della Francia, 1952).

27. Enrico Brenna, Prefigurazione. Prospettive del movimento di pittura nucleare, exhibition brochure (Milan: Studio B24, 1953).



Joe Colombo, Architetture (Architectures), 1952. Mixed media on canvas, 70 x 100 cm Private collection

emblematically entitled "Architectures" [Fig. 7], running parallel to his attending the Brera Art Academy, between 1949 and 1955 he followed the courses at the Polytechnic in support of his interest in planning. Starting from 1952 Colombo took part in all the exhibitions of the movement and in the same years, together with Baj, made a trip to Paris where the Téâtre National Populaire was staging Nucléa "Nuclear", a play by Henri Pichette about the nuclear era whose stage-setting ideated by Alexander Calder was made up of an abstract landscape with "Stabiles" and black clouds in the form of "Mobiles", inhabited by actors curiously very similar to the "extras" painted by Baj,³⁰ interested in representing the play in Italy as part of the nuclear manifestations.³¹ [Figs. 8-9] In fact, Colombo's studies on the "Nuclear City" date to 1952, a utopian city with visible and pragmatic peculiarities that couldn't be compared to the Parisian painted backdrops or stage-settings. The imaginative dimension of nuclear art made him want to concretely organize reality, translating creativity into technical enquiries in order to conjecture plausible habitats. [Fig. 10] Numerous construction details characterized the graphic corpus of the "Nuclear City", with typological variety describing the technologically innovatory functions bound to an optimistic vision of the future thanks to the possibilities furnished by atomic science. Transferred below ground one would have had the services and all of those complementary activities for the needs of citizens who would be called upon to live on the surface in the elevated futuristic structures, most of which spherical and therefore capable of rotating in order to exploit solar energy, and having different functions: homes, primary services and cultural places, also reachable thanks to aerial circulation. The new city would have been built on the ruins of the former one with respect for "artistic monuments and buildings" [Fig. 11] (from amongst others we recognize the cathedral of Milan) incorporated, it's true, but survivors: a new capital that dynamically would

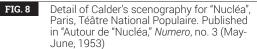
28. On the occasion of the XV Milan Trienniale of 1968 the Japanese architect, Arata Isozaki, was called upon to interpret the theme of the "Large number: the macrotransformations of the territory". Inside the work-installation entitled "Électrical Labyrinth" the artist also reflected on the destruction of Hiroshima with the presentation of historical photographs, photomontages and projections of cities of the future although, here, described as ruins developed out of the rubble. Cf. "2. Grande numero: le macrotrasformazioni del territorio." in Ouattordicesima Triennale di Milano: esposizione internazionale delle arti decorative e industriali moderne e dell'architettura moderna, exhibition catalogue (Milan: Palazzo dell'arte al Parco, 1968), 39-40; Paola Nicolin, Castelli di carte. La XIV Triennale di Milano, 1968 (Macerata: Quodlibet Studio, 2011), 161-170; Yasufumi Nakamori, "Imagining a city through photography: Japan from 1945 to 1968," in Okwui Enwezor, Katy Siegel and Ulrich Wilmes eds., Postwar Art Between the Pacific and the Atlantic, 1945-1965, exhibition catalogue (Munich: Haus der Kunst, 2016-2017), 134-139

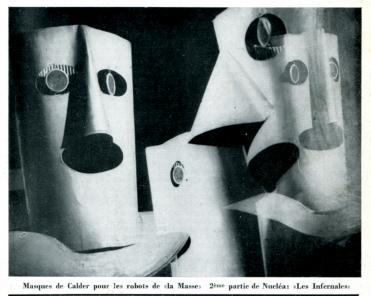
29. There are several sketches by Joe Colombo which depict the "Nuclear City" Some of them are published in the main monographs on the author. See Ignazia Favata, Joe Colombo designer, 1930-197 (Milan: Idea Books Edizioni, 1988 /London: Thames and Hudson, 1988 / Cambridge: The MIT Press, 1988); Vittorio Fagone ed., I Colombo. Joe Colombo 1930-1971. Gianni Colombo 1937-1993, exhibition catalogue (Bergamo: Galleria d'Arte Moderna e Contemporanea, 1995); Giovanni D'Ambrosio. Joe Colombo. Design antropologico (Turin: Testo & Immagine, 2004); Vitra Design Museum and Triennale di Milano in collaboration with Studio Joe Colombo eds., Joe Colombo: inventing the future, exhibition catalogue (Milan: Triennale di Milano, 2005). Also Leonardo Mariani, another protagonist of Nuclear painting, did some architectural experiments. See: Leonardo Mariani, "Piccola storia del mio ingresso nel gruppo e perché," in Anzani, Arte nucleare, 146

30. "...Dans cette pièce, la terreur atomique succède aux horreurs de la guerre, et la cauchemar se prolonge à l'infini. À l'uniforme près, ce sont les mêmes capitaines qui comandent la foule aveugle, cependant que les robots bardés de métal défilent, et que l'injonction 'en masse' fuse aux quatre coins du ciel [...] sur ce fond de banalité tragique déambule Gladior, personnage sans âge et presque sans sexe qui représente l'intellectuel tel que Pichette se plaît à le concevoir". Maurice Sailette, in "Autour de "Nucléa," Numero, no. 3 (May-June, 1953): 5. Also see Dorothy Seiberling, "Calder, his Gyrating 'Mobile' Art Wins International Fame and Prizes," *Life*, no. 8 (August 25, 1952), 86; Alex J Taylor, "Unstable Motives. Propaganda, Politics, and the Late Work of Alexander Calder," American Art, no. 26, (Spring 2012): 3-25; Achim Borchardt-Hume ed., Alexander Calder. Performing Sculpture, exhibition catalogue (London: Tate Modern, 2016), 157.

31. Enrico Baj, "L'amico Joe," in Fagone, / Colombo, 77.







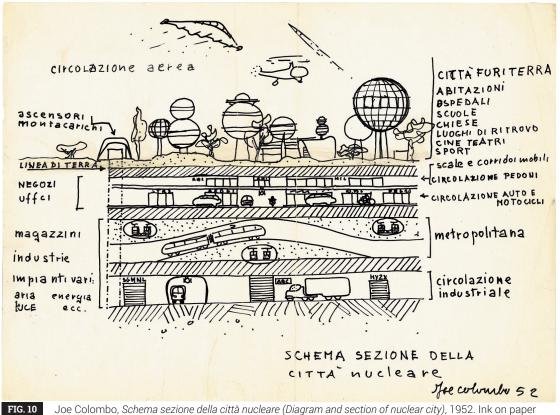
Detail of Calder's mask for "Nucléa", Paris, Téâtre National Populaire. Published in "Autour de "Nucléa," *Numero*, no. 3 (May-June, 1953)

have taken on form in the air. That of the nuclear is no longer an unknown destiny: the metropolis of the future is in fact calculated down to every minimum detail. From this moment on Colombo's attention would always be addressed to hypothesizing concrete living and residential solutions and would be confirmed by his work as a designer, a choice that would make him abandon the painter's palette in order - and in a totally new way - to interpret forms.³² Clearly the city of Colombo is in line with experimentations on the theme which had previously taken place and which in a diversified way - above all starting out from the myth of industrial progress - reflected upon the potentialities of new materials in order to be imagined as visions both dynamic and in movement, also as the antidote to the static nature professed by Cartesian rationalism. Two particular aspects are often evidenced in this context: on the one hand an undoubted belief in technological progress as the medium necessary to make concrete the visions of the future, at least from the planning point of view; and on the other hand the interest and study of solutions capable of responding to the threat of war and the most alarming contingencies. Organization for defence was a theme treated by artists and architects who reflected on threats of war by calculating possible solutions such as those described in 1933 by the Florentine architect Cesare Augusto Poggi who in the evolutive wake of the futurist march forward foresaw possible applications for an "Anti-war architecture" and a "defence from war and bacterial attacks and from telluric and meteoric evolutions".³³ In returning to the context under examination, it is precisely this last aspect which was also investigated by Lucio Fontana who as an artist meditated on this theme and who like Colombo designated reinforced concrete to solve these operations (as a new material even though widely known and employed).³⁴ The idea of a city capable of reflecting upon the potentialities

32. In 1956 Colombo joined the MAC/Espace group to then dedicate himself exclusively to design following the suggestion by Bruno Munari.

33. Luciano Caruso ed., *Manifesti e documenti teorici del Futurismo* (1909-1944) (Florence: SPES, 1990), no. 239.

34. Besides appearing in the graphic notes, reinforced concrete was also the protagonist of the "Manifesto tecnico of Spatialism" (1951) in which Fontana maintained how "reinforced concrete (the means) revolutionizes the styles and the static nature of modern architecture [...] to the static nature the freedom of building not dependent on the laws of gravity [...]". Also Colombo, in the sheets published here, annotates "building in reinforced concrete". Cf. Sanna, *Lucio Fontana*, 29.



Joe Colombo, Schema sezione della città nucleare (Diagram and section of nuclear city), 1952. Ink on paper Courtesy Ignazia Favata - Studio Joe Colombo, Milan

of new materials in order to respond to the threats of the time had in fact been proposed - also graphically - by Lucio Fontana in preparation for the already mentioned "Divine Proportion" intervention of 1951 [Fig. 12]. In syntony with the studies of his Argentinian friend Gyula Kosice of the Madì Group, an important representative for the spatialists and that starting from 1946 proposed the concept of a city beyond the threshold of gravity at a height of 500 metres ("Ciudad Hidroespacial"),35 in the numerous notes for the technical manifesto of spatialism Fontana maintained the need to construct centres of the future detached from the line of the horizon³⁶ even if he does specify that for "nightly rest and atomic defence"³⁷ underground shelters would be fundamental. In fact, in addition to the sketches there is an explanatory text that in detail describes how "Man begins to fear atomic war, his awareness sends him to protect himself below ground [...] enjoying all the forms of modernity and beauty of modern technology [...] villages will be created and the underground cities will be able to be composed of infinite cells of from 16.000 to 20.000 inhabitants [...]"³⁸ and one will be able to enjoy the planet "in its complete beauty" only when "man stops defacing nature with his horrendous architecture".39 If Colombo's articulated sketches complete the context faced with brushes by way of a decidedly more Euclidian vision, during the same period also the nuclear painters reasoned concerning possible planning solutions thanks to the contacts had with the "Movimento Internazionale per un Bauhaus Immaginista" ("International Movement for an Imaginist Bauhaus") (IMIB) by way of the Danish artist Asger Jorn who starting from 1953 established a close relationship with Baj and the

35. Cf. Gyula Kosice, La Ciudad Hidroespacial. Manifesto, in Buenos Aires, Museo Nacional de Bellas Artes ed., Kosice. Obras, 1944-1990 (Buenos Aires: Museo Nacional de Bellas Artes, 1991), 71; Frederic Migayrou, "Kosice: Une physique de l'architecture / Una Fisica de la Arquitectura," in Camille Morineau ed., Gyula Kosice, exhibition catalogue (Paris: Centre Pompidou 2013), 48-57

36. Lucio Fontana in "Manifesto tecnico dello spazialismo" ("Technical manifesto of Spatialism") wrote: "The real conquest of space done by man is the detachment from earth, from the line of the horizon, which for millennia was the basis of his aesthetic and proportion". Cf. Sanna, Lucio Fontana, 30.

37. Sketch 51 D TS 7 MTS verso. Dated on recto September 14, 1951, Archivio Fondazione Lucio Fontana. Milan. Cf. note below and note 17 in this paper.

38. Transcription of sketch 51 D TS 7 MTS recto, September 14, 1951, Archivio Fondazione Lucio Fontana, Milan.

39. Cf. note 37 in this paper and Sanna, Lucio Fontana, 27-30.

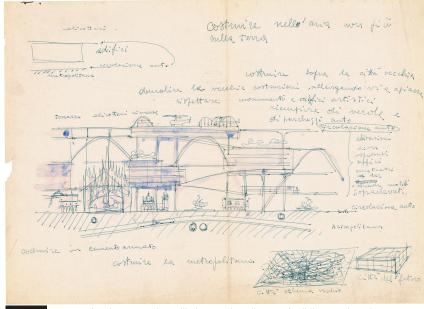


FIG. 11 Joe Colombo, *Costruire nell'aria non più sulla terra (Building on air and no more on earth)*, 1952. Ink on paper Courtesy Ignazia Favata – Studio Joe Colombo, Milan

Milanese group following initial contacts which had come about as the result of the Belgian exhibition of 1952.40 And in a moment in which Jorn was interested in recording on canvas alarming situations as if in expectation of an imminent catastrophe caused by war. IMIB was an important experience and in some respects is autonomous regarding what is written here but which, nevertheless, confirmed a clear interest addressed to questions that go well beyond the painted canvas. In fact, in the propulsive nuclear "thrust" – "le plus vivant en europe"41 – Jorn saw the possibility of crowning his dream that contemplated an active involvement of painters and artists inside the architectural debate in order to once again establish the primacy of the image over form and freedom with respect to the structure, also arriving at hypothesizing a "BAUHAUS MILANO" thanks to the nuclear support.⁴² IMIB was founded in an open polemic with the rationalist and functionalist theories of the so-called "imaginary Bauhaus"43 advocated by the Hochschule für Gestaltung founded in 1953 in Ulm and managed by Max Bill: an ideal continuation of the historic institution of Weimar which, according to Jorn, in its new form did not respect the basic premises of free pictorial experimentation and the integration between the arts in that it was "hostile to whatever attempt at 'self-expression".44 As we have tried to demonstrate, the alternative proposals of the nuclear artists could also - and in different forms control a new idea of planning, undoubtedly contrasting with the desire for geometrical order supported in Milan from 1948 by the MAC painters (Movimento Arte Concreta) which in the wake of Bill's lesson⁴⁵ were interested in abolishing "relationships with the vulgar sensitive world"46 and in establishing a new order in agreement with rationalist architecture. In being absolutely contrary to these opinions, Jorn heartily supported the involvement of the Milanese nuclear group in order to inaugurate a new laboratory of architecture and he asked Baj to write an article to challenge 40. The contacts between Asger Jorn (among the founding members of the CoBRA Group) and the nuclear artists of Milan began in 1952 following the exhibition by Baj and Dangelo at the Galerie Apollo in Brussels. For health reasons Jorn moved to Italy in 1954 (to Albisola).

41. Letter from Jorn to Baj, March 7, 1954 now in *Baj Jorn. Lettres* 1953-1961 (Saint-Étienne: Musée d'Art Moderne, 1989), 53.

42. Letter from Jorn to Baj, March 7, 1954: "J'ai aussi pense si sur la base du Mouvement Nucleari on pourrait faire une BAUHAUS MILANO. Ca ne doit pas s'occuper a instruir des eleves, ni faire des outiles pour l'industrie, mais il doit etre un lieu ou institut ou les artistes experimentaux pourrit comparer et discuter leurs experiences et arriver a des resultats theoriques durables et plus exactes (Sic!)". Cf. *Baj Jorn. Lettres*, 52-53.

43. Asger Jorn, Immagine e forma. Bollettino d'Informazioni del Muvement International pour un Bauhaus Imaginiste, no. 1 (Milan: epi. Editoriale periodici italiani, 1954). The Italian edition was edited by Enrico Baj. The text was translated into Italian by Sergio Dangelo. The second issue of the IMIB bulletin will be the first number of the magazine // Gesto. Rassegna Internazionale delle Forme Libere. It was edited by the Movimento Nucleare and the French review Phases by Edouard Jaguer and published for the exhibition // Gesto (Milan: Galleria Schettini, 1956). One should also see: Mark Nicholls and Anthony White, "// Gesto: Global Art and Italian Gesture Painting in the 1950s," Humanities Research. The Journal of the Research of Humanities & *the Arts* ("The world and world-making in art"), no. 2 (2013): 81-97.

44. Jorn, Immagine e forma, [9]. From 1953 Max Bill managed the Hochschule für Gestaltung, founded in Ulm in the same year as the ideal continuation of Bauhaus. Mindful of the teachings of Klee and Kandinsky at the group's historic seats, Jorn contacted Bill in order to be accepted as a teacher in the sector of the free arts Bill declined the request given that the organization of the new school was aimed at developing concrete forms of art and functional objects to be produced on an industrial level. For this reason Jorn founded a sort of anti-Bauhaus which he called the "International Movement for an Imaginist Bauhaus". An endless bibliography exists regarding the IMIB. I shall therefore limit myself to indicating the works in relation to the Italian context. Mirella Bandini, L'estetico il politico. Da Cobra all'internazionale Situazionista 1948/1957, 2nd ed. (Milan: Costa & Nolan, 1999), 67-99; Anzani, Arte nuclear 1951-1957, 15-20; Sandro Ricaldone ed., Una mostra: Jorn in Italia. Gli anni del Bauhaus immaginista 1954-1957. Jorn a Moncalieri, exhibition catalogue (Moncalieri: Biblioteca civica "A. Arduino", 1997); Nicola Pezolet, "Le Bauhaus imaginiste contre un Bauhaus imaginaire": la polemique autour de la question du fonctionnalisme entre Asger Jorn et Max Bill, thesis specializing in the History of Art, Departement d'Histoire, Faculte des Lettres Université Laval, Québec, 2008; Denis Laoureux and Matilede Amaturo ed., CoBrA e l'Italia, exhibition catalogue (Rome: Galleria nazionale d'arte, 2011); Ruth Baumeister, L'architecture sauvage. Asger Jorn's critique and concept of architecture (Rotterdam: nai010, 2014); Cf. Karen Kurczynski, The Art and Politics of Asger Jorn. The Avant-Garde Won't give Up (Farnham: Ashgate Publishing Company, 2014), in particular chapter 3; Luca Bochicchio, "Build to Destroy: Enrico Baj, CoBrA and the possible revolution," in Enrico Baj: Play as protest, exhibition catalogue (Amstelveen: Cobra Museum of Modern Art and Cobra Museum voor Moderne Kunst, 2017), 120-123.

the purists and delineate the programme of a nuclear architecture conceived by painters and sculptors "comme tout le grande architecture", seeing in Michelangelo – as the extreme protagonist of the synthesis between the disciples – as being "le peintre nuclaire de son temps".⁴⁷

nous, ficini di detufirer la metur colle me rende medilettur a useim a poversela voue inveta vella mu cellen ouplet cetti cellule. The celle mortente : Les sotona Jesa atom Clemente armet rivelyin della cotetia e stati cu Sell'architettur man one him cos molen inture sotto terre FIG. 12 Lucio Fontana, Studi grafici e testi per il Manifesto tecnico dello spazialismo (Graphic studies and texts for the technical manifesto of Spatialism), 1951. Ink on paper

Enzo Venturelli: a Nuclear Architect

In total agreement with the theories of the IMIB and responding to the explicit request of the Danish artist, Baj outlined an initial invective against the work of the ethereal purist architects who in his opinion, on having declared war on the figurative arts, had stupidly ignored their own origins which were clearly traceable to Mondrian's painting: paradigm of an anticipation of painting over architecture.⁴⁸ IMIB passed into the annals of history as one of the most significant alternative experiences for European architecture notwithstanding the fact – and irrespective of what Jorn wanted – that the Milanese group never specified the characteristics of a nuclear architecture which apart from and beyond the 45. Max Bill will be one of the promoters of the Milanese exhibition *Arte astratta e concreta* (Milan: Palazzo Reale, 1947).

46. Borghese, Arte nucleare. Despite several controversies, MAC welcomed many others artistic groups including the Movimento Nucleare. The Nuclear manifesto, "Danger public", was prensented inside the "Bollettino Movimento Arte Concreta," no. 10 published on the occasion of the exhibition Arte organica, macchinismo, Arte Totale e Dis-int-egrismo, Milan. Galleria dell'Annunciata, saletta dell'elicottero, 1952. Cf. note 3 in this paper and also Luciano Berni Canani and Giorgio Di Genova eds., Mac/Escpace. Arte concreta in Italia e in Francia 1948-1958, exhibition catalogue (Rome: Acquario Romano, 1999).

47. Letter from Jorn to Bay, December 1953, now in: *Baj Jorn. Lettres*, 40-41. "J'ai ecrit la même question aux autres artistes de tendence libre pour lever un protestation vif contre l'oppression de l'art et la peinture libre par l'architecture abstraite et fonctionalliste. Je veut faire paraitre une petite revue: 'Bauhaus immaginaire' et j'espere que j'aura un article de vous qui attaque l'architecture puriste et trace le programme d'une architecture nucleaire formee par les peintres=sculpteurs comme tout le grande architecture. Je vois chez Michel Ange le peintre nucleaire de son temps. (Sicl)".

48. "Je suis parfettement d'accord avec toi: tes convinctiones sont aussi les miennes et pour ce-la je suis ancore plus heureux de ta lettre et de la coincidence des nos intentions. Tu peus donc être bien sûre de mon accord et de l'accord de tout le Movimento Nucleare, dans le lutte que tu va conduire contre le nouveau Bauhaus de Max Bill. [...] En effect c'est justement pour combattre contre le purisme, abstractisme, inutilisme, stérilisme etc.; que j'ai organisé ici notre Movimento: nos manifestation ont eu souvent le but éxclusive de combattre la stupidité présomptueuse des abstraitesconscrets et des leurs petites trouvailles geometriques. De cette situation les architectes sont coupables au moins trois fois: avant tout parce que, même s'ils ont fait des grands progrès dans l'hygiène, les waterclosed, etc., ils ont complétement oublié (et même cherché à supprimer) l'art. Et encore: ils supposent dans l'hommé des qualité que l'homme heureusement n'auras jamais. Enfin au present les architectes déclarent la guerre à la peinture-sculpture et ils oublient que au present et en retard ils batissent les maisons que nous voyons, puisque ils ont vue les éxpériments picturales de Piet Mondrian et tous les tableaux du formalisme geométrique. (Sic!)" Letter from Baj to Jorn, Milan, January 2, 1954. Now in: Baj Jorn. Lettres, 44-45. In a following letter (January 14, 1954) Baj confirmed to Jorn that the Italian editor for the IMIB bullettin could be the Movimento Nucleare. Cf. Baj Jorn. Lettres, 46 and note 43 in this paper. Sic.

Courtesy Fondazione Lucio Fontana, Milan

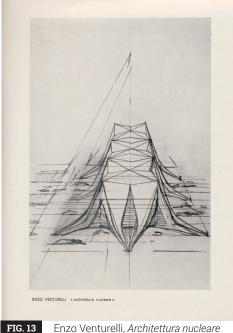


FIG. 13 Enzo Venturelli, Architettura nucleare (Nuclear architecture), in Il Gesto 3, September 1958

coordinates which identified the places frequented by the artists of the movement instead assumed a form in Turin thanks to the architect Enzo Venturelli.49 To date we do not have the terms to establish if in this first period there existed direct contacts between the Turinese architect and the Milanese exponents who only in 1958 published his own "Architettura Nucleare" in the official publication of the movement // Gesto.⁵⁰ [Fig. 13] In whatever case, it would not surprise us to think that

the terminology adopted by the architect was not also inspired by the artistic movement that at the time enjoyed international recognition and that precisely in Turin in December 1953 inaugurated an exhibition at the Galleria Alle 4 Pipe introduced by Jorn's text "Fare segno" ("Carrying out sign"), a text in which it was reaffirmed how "The scientists who in the atom discover a force of destruction have to be replaced by men gifted with a creative spirit".⁵¹ [Fig. 14] Effectively speaking, while official recognition by Venturelli of the Milanese group did not exist, above all in the first period one can nevertheless certify significant affinities translated in stone and lime. Following a personal adhesion to characteristics close to the rationalist language, starting from the 1950s Venturelli's career carried out a brusque

49. The work by Enzo Venturelli (1910-1996) gave rise to considerable interest, above all when the architect was still alive, as is shown by his international recognition. However, up until the present it is only possible to cite two monographs and a few in-depth research works. See Mario Marchiando Pacchiola ed., Enzo Venturelli. (Pinerolo: Q.30, i quaderni della Collezione Civica d'Arte, 1992); Roberto Gabetti, Aimaro Isola, and Benedetto Camerana, "Echi fuori d'Italia: architetture a Torino, 1950-1970," in Germano Celant, Paolo Fossati, and Ida Giannelli eds., Un'avventura internazionale. Torino e le arti 1950-1970, exhibition catalogue (Turin: Castello di Rivoli 1993), 60-75, in particular 62; Marco Parenti and Angelo Mistrangelo eds., Enzo Venturelli Architetto (Alessandria: Edizioni dell'Orso, 1999). Regarding the representations to define an ideal town also see: Andreina Milan and Margot Pellegrino, "Futurama II'. Tracking the 'Presence of the Future' in Contemporary Architecture Representations," Cahiers Thématiques, no. 12 (2013): 31-38, which compare works by Enzo Venturelli, Claude Parent and Roger Anger. Monographic exhibitions and autonomous investigations were also dedicated to his activity as a painter in order to underline an important continuity of formulation between architecture and the visual arts. For this aspect I refer the reader to: Angelo Mistrangelo, "I'immagine tra architettura e pittura," in Parenti and Mistrangelo, *Enzo Venturelli*, 115-118. All the documentation regarding Venturelli is today conserved in the Archivio di Stato in Turin, Inventory no. 312 - Archivi privati - Archivio Architetto Enzo Venturelli. Another collection of documents regarding Venturelli is conserved at the Università Statale of Milan. Biblioteca di Storia dell'arte, Fondo Brizio.

50. Il Gesto 3. Rassegna internazionale delle forme libere, (Milan: epi, September 1958).

51. Asger Jorn, presentation for the exhibition: *Pittura nucleare (Baj, Colombo, Dangelo, Mariani, Rusca, Serpi)*. Turin: Galleria Alle 4 Pipe, December 3-16, 1953. Also see some articles of the local Turinese press: "I nucleari," Gazzetta del popolo, (December 10, 1953); "In Galleria. I nucleari alla 'saletta delle 4 pipe;" Il popolo nuovo, (December 6, 1953).



FIG. 14 Invitation-brochure for the exhibition *Pittura nucleare (Nuclear painting)*, with presentation by Asger Jorn and drawing by Sergio Dangelo, Turin, December 3-16, 1953 Rovereto, Mart, Archivio del '900, fondo Baj, Ba.1.1.2.6.20

inversion in tendency. The graphic corpus of those years registered buildings that were formerly non-conformist, "of new expression", although ideated in order to solve concrete problems of reality and comply with precise functions from the residential and urban points of view (elevated structures so as to leave the ground free for traffic and parking).52 The architect's interest ranged from the study of futuristic television stations to blocks of flats with alternate gridplan floors - in order to break with the classical curtaining of the street and guaranteeing light and openings - or else even circular in such a way as to also take advantage aesthetically. And then in a slightly later project he also found himself exalting the possibility of detaching the buildings from the urban ground in order to enjoy "free spatial visions", far from noise and smog with everything, obviously, accompanied by a modern system of aerial circulation. [Fig. 15] The role of nature which stylistically shows convincing affinities with the hallucinated detail of organic structures in the first sheets already seems determinant: an oneiric and at times menacing landscape in agreement with the apocalyptic and postatomic scenarios depicted by the nuclear painters. [Fig. 16] These reflections on a



Enzo Venturelli, *Studio di edifici per il futuro (Study on buildings of the future)*, 1957. Copy on paper Archivio di Stato di Torino, Archivio Architetto Enzo Venturelli, Box 23



FIG. 16

FIG. 15

Enzo Venturelli, *Villa nella foresta (House in the forest)*, 1953. Copy on paper Archivio di Stato di Torino, Archivio Architetto Enzo Venturelli, Box 23

"re-naturalized" universe led him to develop a personal idea of architecture, defined as nuclear. It is difficult to establish the exact time that Venturelli decided to use the term, to be found in various typewritten documents – not all uniform – preceding a text on nuclear architecture presented in 1958 on the occasion of a one-man exhibition.⁵³ It is nevertheless certain that one began to talk about nuclear architecture much earlier, certainly from 1954-1955 with the finishing of a building that became its manifesto: the home-studio for the sculptor Umberto Mastroianni planned starting from 1953 on the city's high ground. **[Fig. 17]** According to Venturelli's intentions the new building was to have represented an architecture embodying "rapid and progressive variability, contemporary of the nuclear era from which it draws its origin and motivation" in "opposition to the building system of the abused linear and flat boxed forms".⁵⁴ In the wake of

52. The urban theories will be the protagonists of an autonomous study by him published in 1960: Enzo Venturelli, Urbanistica Spaziale. Integrazione dello spazio nella città (Turin: Editori Fratelli Pozzo, 1960). Also see Bruno Zevi, "Urbanistica spaziale. Recise le caviglie a tutti i fabbricati," in Cronache di architettura IV. Dai laboratori medici di Kahn al piano di Tange per Tokio (Bari: Editori Laterza 1971), 174-177.

53. Travelling exhibition *Enzo Venturelli*, *Architecture du temps Nucléaire*. Paris: Office national Italien de Tourisme, 1958 and Milan: Galleria d'arte Selezione, 1958. The exhibition was featured in important Italian and international newspaper and magazine articles. For a complete bibliography see: Marchiando Pacchiola, *Enzo Venturelli*, 34-40.

54. Enzo Venturelli, "Premesse" ("Foreword"), in *Casa studio per lo scultore Mastroianni*, ("Home-studio for the sculptor Mastroianni"), typewritten dated Turin, September 1958, in the Archivio di Stato di Torino, Archivio Architetto Enzo Venturelli, Box 12, folder 180, page 1. the controversies already encountered with regard rationalist poetics, to architect as an also Venturelli disassociated himself in order to support a new idea of architecture capable of emancipating itself from the "planned form" and "the polished structure".55 The premises of the change were to be found in the potentialities of the new energy capable of upsetting the possibilities of daily lives, therefore architectural occasions. "With 'nuclear' architecture the external elements of architecture are integrated with a



Questo edificio è stato costruito sulla collina di Torino: è la casa-studio dello scultore Mastrojanni. Il progettista ha inteso dar vita a una nuova architettura che si svincoli dalle forme attuali impostate sul razionalismo e la funzionalistà. «Architettura nucleare » è stata chiamata perchè con-cepita e svilupata nell'era della bomba «H». "È nata l'architettura nucleare" ("Nuclear Architecture is born"), in *Nazione sera*, December 12, 1955 (Detail of Mastroianni Home-Studio, Turin) FIG. 17

new element which takes its inspiration from the various intellectual manifestations of man's life; and from the free imagination and brain of the artist innumerable forms and creations flow out, and depending on the cases and the feelings of the artist, architecture will also be able to include philosophical, musical, scientific or sentimental concepts, it will be able to be painting, music, literature etc.; so in the creation of the home-studio for the sculptor Mastroianni I was able in a complete form to apply the inspiration of the new architecture".⁵⁶ [Fig. 18]

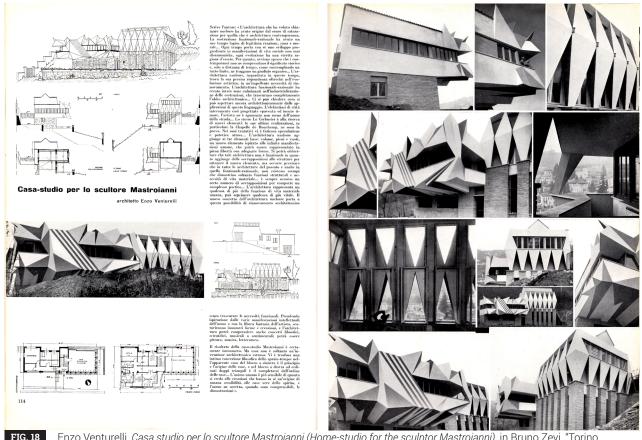
In line with the principles advanced by Jorn, in the definition of the new nuclear architecture as furnished by Venturelli, a key role was taken on by the figure/imagination of the architect-artist who as interpreter of the new age delineates a style suited to it given that "it is mistaken to affirm that by exclusively following the internal form without the addition of other elements one defines an architecture or a style, otherwise there would never have been a style".⁵⁷ In 1953 Jorn invited Baj to reflect on how the house had no longer to be a "machine for habitation" but a machine to shock and impress, a machine of human and universal expression.⁵⁸ Also in the text of 1954 entitled "Image and Form" that ratified the guidelines laid down by the IMIB, Jorn observed how the exterior of an architecture "must not reflect the interior but [be] a source of poetic sensation for who observes it".⁵⁹ A result overtly followed also by Venturelli in his search for a poetic "whole" in which the dynamicity of the surface at the same time respected skillfully combined "supporting" functions. For the architect the Mastroianni Home-Studio was to represent an important point of arrival 55. Enzo Venturelli, Appunti sull'architettura nucleare ("Notes on nuclear architecture"), undated, typewritten, in the Archivio di Stato di Torino, Archivio Architetto Enzo Venturelli, Box 12, folder 180, page 2.

56. Enzo Venturelli, Architettura nucleare ("Nuclear architecture"), undated, typewritten, in the Archivio di Stato di Torino, Archivio Architetto Enzo Venturelli, Box 21, folder 5, page 5. Text partially published in Bruno "Torino irrazionale. L'architetto Enzo Zevi. Venturelli," L'architettura. Cronache e storia, no. 8 (June 1956): 114. See illustration 18 in this paper. The Home-studio for the sculptor Mastroianni was recently published in Martin and Werner Feiersinger, Italomodern Architecture in Northern Italy 1946-1976 (Zürich: Park Books, 2016), 44-45.

57. Enzo Venturelli, descrizione dell'autore sull'architettura "nucleare" ("Description by the author on 'nuclear architecture'"), undated, typewritten, in the Archivio di Stato di Torino, Archivio Architetto Enzo Venturelli, Box 21, folder 5, page 4.

58. "La maison ne doit pas etre une machine a habiter. mais une machine a chocquer a impressioner, une machine d'expression humaine et universelle". Letter from Jorn to Baj, December 1953, now in Baj Jorn. Lettres, 41.

59. Jorn, Immagine e forma, [3]. In that same year (1954) Jorn advanced his adverse reasons regarding the standardization of forms at the X Triennial in Milan where besides the exhibition of his ceramics he also took part with Lucio Fontana in the "1st International Congress of Industrial Design" where he criticized the position of Max Bill, the protagonist of the entire event. Cf.: Paola Valenti, "Lo sguardo 'libero' di Asger Jorn su Le Corbusier, Max Bill e Lucio Fontana," in Luca Bochicchio and Paola Valenti eds., Asger Jorn. Oltre la forma. The form and Beyond, exhibition catalogue (Savona and surroundings, 2014), 55-56.



Enzo Venturelli, Casa studio per lo scultore Mastroianni (Home-studio for the sculptor Mastroianni), in Bruno Zevi, "Torino irrazionale. L'architetto Enzo Venturelli," L'architettura. Cronache e storia, no. 8 (June 1956), 114-115

as one can also deduce from his writings which consider this creation as being a manifesto that clearly lays out his idea of architecture. In order to define the form of this new project (of which no trace remains of a direct contribution of the client-sculptor) Venturelli avoids the superimposition of decorations in order to work directly on the volume of the structure in such a way as to give the building a clearly plastic and "exploded" connotation as was reported by numerous Italian and international newspapers and magazines which in an equivalent way approved and in some cases "slammed" the work as Bruno Zevi did, complete with a drawn-out polemic with Venturelli (seeing in his proposals an act of pure decoration), notwithstanding the fact that on various occasions Zevi chose to present it in the magazine directed by him.60 In 1958 an itinerant exhibition - first in Paris and then at the Galleria d'arte Selezione in Milan - honoured Venturelli's nuclear architecture presented in the manifesto by means of a revolutionary - and not too distant - Fallingwater now in the form of a spaceship⁶¹ [Fig. 19]: certainly an occasion for the Milanese painters to get to know his work as is also shown by the book of signatures which, amongst others, includes Baj.62 As already mentioned, it is not fortuitous that in the same year the drawing/design of an "Architettura nucleare" was given a full page at the end of *II Gesto* 3,63 testifying recognition on the part of the Milanese milieu and also confirmed by friendly comments written by the members of this same milieu to that "architect of nuclei", as Baj defined Venturelli.⁶⁴ [Fig. 20]

60. Notwithstanding the fact that Bruno Zevi decided on various occasions to consider Venturelli's work, it was above all in the first articles that he did not miss the chance of disagreeing with the latter's architecture. With time the polemics abated as is confirmed by the friendly written correspondence between the two: Archivio di Stato di Torino, Archivio Architetto Enzo Venturelli, Box 36. Also see: Bruno Zevi, "Noia e stravaganza di Enzo Venturelli," Espresso (March 4, 1956) and Zevi, "Torino irrazionale", 112-115. The Mastroianni Home-Studio was featured in important Italian and international newspaper and magazine articles. For a complete bibliography see: Marchiando Pacchiola, Enzo Venturelli, 34-40.

61. Cf. Luisa Perlo, "La casa sul ruscello," *Afterville*, no. 0 (fall-winter, 2007): 5. For the exhibition cf. note 48 in this paper.

62. The book of signatures for the exhibition is now preserved in the Archivio di Stato di Torino, Archivio Architetto Enzo Venturelli, Box 25.

63. Cf. note 50 and illustration no. 13 in this paper.

64. Dedication by Enrico Baj to Enzo Venturelli appearing on the first page of Baj's monograph written by Jaguer and belonging to Venturelli. Lucio Fontana also dedicated one of his catalogues to Enzo Venturelli. Both books which belonged to Venturelli are now preserved in the Archivio di Stato di Torino, Archivio Architetto Enzo Venturelli, Box 124.

Conclusion

This treatise has evidenced two essential aspects regarding nuclear architecture. The first has focussed on its aspects strictly connected to alarming situations which as found in the "nuclear cities" has led some people to study and plan solutions for an imminent atomic era. The second, on the other hand, proposed nuclear architecture as alternative research and critical evaluation with regards to the project discipline in a moment of crisis of the rationalist premises typical of the later postwar period. Nuclear energy was certainly an impulse for believing in a technological future which even today still remains a chimera that dogs the minds of many architects but which above all became an expedient in order to go beyond a condition of architecture no longer widely accepted and no longer capable of coping with contingent demands and a planning of the future. Jorn himself affirmed how the artists could take part in a "new and more profound understanding of the real nature of the matter obtained from scientific and philosophical research works, nuclear and universal"65 and how his interest for the Milanese protagonists derived from an ability on their part to "[...] mould forms, images and symbols, as if from a primitive chaos, [...] symbols which from 'nuclear' are converted into

'natural' ones. In these symbols lies the nucleus of the artistic language that is necessary for the expression of this new world which we feel being created around us, day by day".66 The "triangulation" proposed -Movimento Nucleare, IMIB and Venturelli - while not being characterized by linear coordinates in different forms does evidence this latter aspect of the polemic initially begun by protagonists tied to the system of the figurative arts and to painting in particular.67 Also Enzo Venturelli in nuclear architecture recognized the possibility of disintegrating the construction vocabulary exactly as painting had done in following the rules of its grammar. In this sense the architects tried to free themselves from a status quo that tied their work to methods which were sometimes inflexible in order to move closer to a creative process that was certainly more in line with pictorial experimentations as Jorn warned in his guiding text for the IMIB titled "Image and Form", not to mention the first number of the IMIB information bulletin "Image and Form", for the Italian edition curated by Enrico Baj and translated from the French by Sergio Dangelo: "Painting and sculpture are 'arts that create images'; although architects ought to be aware that all the forms created by man are necessarily and first and foremost imagined; for this reason painting always precedes architecture".68 A text on architecture which I would like to think has been read by all the protagonists named, as probably it has been. A treatise that in its title reveals a clear desire for synthesis in which "image and



ENZO VENTURELLI EXPOSITION ARCHITECTURE DU TEMPS NUCLÉAIRE Paris, le 2 arril 1958 * OFFICE NATIONAL ITALIEN DE TOURISME 23. Rue de la Pais 23

GALLERIA D'ARTE SELEZIONE - MILANO - VIA BRERA, 14 dal_{2}^{A} al 15 giugno 1958

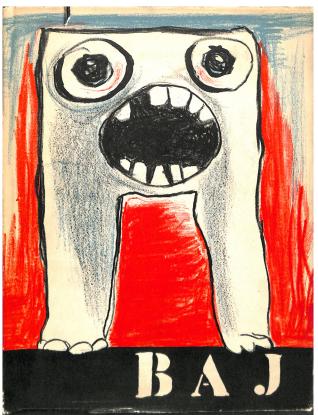
FIG. 19 Brochure for the exhibition, *Enzo Venturelli*. Architecture du temps nucléaire (Architecture of the nuclear period), Paris-Milan, 1958

65. Jorn, Immagine e forma, [6].

66. Asger, Jorn, "The Meaning of the Nuclear Plastic Experience," a [1954] manuscript quoted in Sauvage, Arte nucleare, 36

67. In 1956, enriched by the support of European experimental groups but no longer having Baj and the Movimento Nucleare, in the town of Alba IMIB promoted the Congresso Mondiale degli Artisti Liberi (1st World Congress of Free Artists) arriving at theorizing an increasingly more refined idea of architecture based upon the construction of forms of behaviour. On that occasion also an already consecrated exponent of architecture in the person of Ettore Sottsas Jr. proposed an interesting vision of architecture which for him was not easily assimilated with regard to structural questions given that in so doing "every plastic deviation [...] will end up always being a superstructure, a 'decoration''' for transferring a central role to artistic research. See Ettore Sottsas jr., "Relazione al I Congresso Mondiale degli Artisti Liberi," in Bandini, L'estetico il politico, 254-259.

68. Jorn, Immagine e forma, [2]



a Venturelle architetta de maleo

FIG. 20 Dedication by Enrico Baj to Enzo Venturelli appearing in the first page of the Baj's monograph written by Jaguer in 1956 Archivio di Stato di Torino, Archivio Architetto Enzo Venturelli, Box 124

form" are explicitly the paradigm of "painting and architecture". Moreover, and confirming an important exchange of information which goes beyond whatever disciplinary distinction, in a letter to the Italian editors Jorn insists that at the end of this first bulletin they insert a bibliographical reference which he came across at the last minute but which for him was very important: two significant interventions that the architect Luigi Moretti dedicates to the theme of "structure-form" included in his journal entitled *Spazio* in which he maintained how the various "moments" of architecture must be indistinguishable given that "a work of architecture is therefore in every point reality and representation" that has "to hold still the structure in the continued existence of a form".⁶⁹ An "original" dialogue that evidences elective affinities between different protagonists firmly convinced of the expressive value of the image as an inevitable instrument for every type of research, more so if the question is that of thinking about the future.

69. Luigi Moretti, "Struttura come forma," Spazio, no. 6 (December 1951 – April 1952): 30 and 110; Luigi Moretti, "Strutture e sequenze di spazi," Spazio, no. 7 (December 1952 – April 1953): 9-20; 107-108.