

God and the Atom: Salvador Dalí's Mystical Manifesto and the Contested Origins of Nuclear Painting by Michael R. Taylor

In December 1951, Salvador Dalí announced his newfound interest in the pictorial possibilities of nuclear physics and molecular chemistry at a press conference in London, where he declared himself to be the "First Painter of the Atomic Age" and dismissed all the works he had produced up until this point as "merely evolution."¹ The devastating destruction of the Japanese city of Hiroshima by a nuclear fission bomb with a yield of 15 kilotons – equivalent to the force of 15,000 tons of TNT - had forced Dalí to re-think both the subject matter and spatial complexities of his subsequent paintings. On August 6, 1945, at 8.15 am, a flash a thousand times brighter than the sun illuminated the sky above Hiroshima. It was immediately followed by a wave of incandescent heat and, a few minutes later, a ferocious hurricane that swept away everything in its path. The terrifying heat turned the city into a gigantic inferno, which in turn generated a violent wind followed by black rain. By mid-afternoon the entire city was destroyed. At least 80,000 people were killed in the explosion, and almost as many suffered serious, life-threatening injuries. In the weeks that followed many more were to die in terrible agony from the burns they had sustained after the initial blast, or from the effects of radiation, which caused internal bleeding, cancer, and leukemia.²

How could an artist like Salvador Dalí, whose work was based on an intuitive, paranoiac-critical understanding of the social and political events of his times, not be profoundly affected by the tragic events at Hiroshima, which had revealed the seemingly unlimited destructive capacity of nuclear weapons, as well as the near impossibility of protecting oneself against their pernicious effects, including the long-term consequences of ionizing radiation. "The atomic explosion of August 6, 1945, shook me seismically," Dalí later recalled. "Thenceforth, the atom was my favorite food for

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thought. Many of the landscapes painted in this period express the great fear inspired in me by the announcement of that explosion."³

In his 1945 painting **Melancholy Atomic and Uranic Idyll** the awesome destructive power of the atomic bomb is not conveyed through the familiar symbol of the mushroom cloud, but rather through an accumulation of associative images, ranging from a stylized fireball-like explosion to American baseball players, warplanes, and elephants with insect-like legs, all of whom hit, drop or release deadly egg-shaped bombs. From little league to Little Boy was not such a huge leap for Dalí's fertile and elastic imagination to make, while the pellet-dropping pachyderms on stilts surely equate indiscriminate aerial bombing with the terrifying threat in antiquity of Hannibal's mighty elephants.⁴

As Jean-Paul Sartre argued in his 1946 essay "War and Fear," living with the threat of nuclear war was the beginning of the age of abstract mass murder: "In other times one risked one's life against the lives of others; one saw one's dead enemies in close proximity, one could touch their wounds."⁵ But today, atomic warfare meant unleashing catastrophic destruction from afar. Without taking a risk, Sartre concluded, "one dies for nothing."⁶ This form of existential angst is clearly discernable in Dalí's melancholic painting, which references the living nightmare of the threat of instantaneous annihilation in a post-Hiroshima world. It is a somber work whose iconography remains indebted to the artist's earlier Surrealist vocabulary of melting watches and paranoiac-double images, and thus fails to convey the explosive force of energy released from matter.

Dalí's next effort in this vein, **The Three Sphinxes of Bikini**, of 1947, was also firmly rooted in pre-existing ideas about paranoiac double-images, despite his statements of the time that he was "no longer interested in the psychopathological" and that all of his future paintings would be influenced by the atomic bomb.⁷ Like Leonardo da Vinci before him, Dalí had an uncanny knack for perceiving hidden or composite images in the natural world, often taking advantage of the slightest coincidences of shape and color to ingeniously transform one image into another, as in this work, which takes as its subject matter the American atomic bomb tests carried out on the Bikini Atoll, near the isolated Marshall Islands in the Pacific Ocean. The bulbous, mushroomshaped clouds caused by these detonations take the form of human heads, seen from the back, with smooth necks and white plumes for hair, whose anthropomorphic forms are repeated in the shape of a clump of trees in the middle distance.

The suspended animation of **Leda Atomica**, of 1947-49, represents a more convincing approach to the artist's stated aim of recuperating the traditional techniques of the Old Masters in order to interpret the new conception of nuclear physics. The mysteriously levitating objects in this painting reveal Dalí's understanding of such key concepts as the discontinuity of matter and the dissolution of gravity. Everything in the painting appears to float in a weightless atmosphere in which nothing touches, thus conforming to the recent scientific notion that particles do not touch at the atomic level. As his subsequent paintings of the late 1940s and early 1950s attest, the artist sought to replicate nuclear fission through the dematerialization of figures and objects in paintings that often take as their subject-matter traditional Christian iconography, such as the Madonna and Child and the Crucifixion.

The artist called this hybrid combination of atomic age physics and Catholic doctrine "Nuclear Mysticism" and its application can be seen in the first version of **The Madonna of Port Lligat**, where the changes in matter resulting from an atomic explosion are parallel to the physical and spiritual transformation of the praying Madonna who carries the Christ child in the rectangular window space of her perforated belly. By 1951, Dalí could claim, without any hint of irony, that he was painting "in constant explosion. In nuclear bombing from the scientific point of view it is possible to approach the real mystery of life."⁸ The artist thus formulated a positive response to the implications of living in the nuclear age, which he would expand upon in his <u>Mystical Manifesto</u>, published in Paris in April 1951.

"The two most subversive things that can happen to an ex-Surrealist in 1951," Dalí wrote, "are, first, to become a mystic; and second to know how to draw."⁹ The artist went on to describe himself in the <u>Mystical Manifesto</u> as a mystic in the Spanish tradition of Saint Theresa of Avila and Saint John of the Cross, who could use his ecstatic mystical reveries to imaginatively interpret the latest scientific advances of his age. Dalí's embracement of what he called "militant Spanish mysticism," and his related efforts to reinvigorate modern painting through the utilization of the techniques and religious iconography of the Italian Renaissance, were inextricably linked with his understanding of recent scientific discoveries, most notably atomic energy and quantum physics. According to Dalí, it was up to the mystical, ultra-individualist artist, in a state of ecstasy, "to resolve the new "golden sections" of the soul of our time,"¹⁰ and the manifesto ends with the prediction that his next painting, **The Christ of Saint John of the Cross**, would contain "more joy and beauty than anything that will have been painted up to the present. I want to paint a Christ that will be the absolute contrary in every respect to the materialist and savagely antimystical Christ of Grünewald!"¹¹

Dalí's <u>Mystical Manifesto</u> was intended to usher in a new era of mystic painting that would replace what he perceived at the time to be the bureaucratic formulas of "pseudo-decorative abstract modern art," whose decadence he clearly aligned with the gangrenous sores of Christ's body in the Isenheim Altarpiece."¹² However, the optimistic message about the Nuclear Age presented in the <u>Mystical Manifesto</u> and subsequent paintings, including **The Christ of Saint John of the Cross,** sets his ideas apart from those of his contemporaries, such as the Italian artist Enrico Baj, a founding member of the Nuclear Art movement in Milan, whose work in the early 1950s took a pessimistic, apocalyptic view of the destructive potential of the atomic bomb to unleash a nuclear holocaust in which the victims would be reduced to the shadowy immateriality of radiation.

Inspired by the free-flowing, emulsified colors of Jackson Pollock's monumental drip paintings in the Peggy Guggenheim Collection in Venice, and the use of chance procedures and automatism in the Surrealist works of Max Ernst, Oscar Dominguez, Wolfgang Paalan, and Joan Miró, Baj began creating improvised, quasi-figurative paintings in oil and enamel paint in which free-form swirls, spills and pools of color are used to suggest radioactive wastelands or biological mutation. The familiar mushroom cloud of the atomic bomb is occasionally discernable in Baj's gestural paintings and drawings of the period, such as the appropriately named **Little Boy**, of 1951 (named after the bomb dropped on Hiroshima by the B-29 Enola Gay), which references the very real threat of a nuclear inferno in which all human existence could be vaporized in a single instant.¹³ However, the title also suggests a second meaning for the work, namely the hideous side effects of radiation poisoning, such as birth defects and leukemia, which are addressed in numerous works by the artist during this period. "From the time of the first atomic bomb," he later recalled, "I saw humanity living in a constant state of terror and alarm as the end of the world approached."¹⁴ As his writings and public statements attest, the nuclear age for Baj meant living on a knife-edge, keeping a delicate balance between the hopes of unlimited scientific progress and the risks of total destruction brought on by man's innate aggressiveness and stupidity.

In October 1951, Baj and his close friends Joe C. Colombo and Sergio Dangelo launched the Nuclear Art movement ("Movimento d'Arte Nucleare") in Milan, which took the form of a series of group exhibitions, held throughout Europe, which lasted until 1957, by which time they had been joined by such notable contemporaries as Yves Klein and Piero Manzoni. In February 1952, Baj and Dangelo published a Manifesto of Nuclear Painting in Brussels in which they warned of the inherent dangers of the misapplication of nuclear technology, while at the same time recognizing the need to reinvent painting in the atomic age. "All forms disintegrate," they wrote, "the new forms of man are those of the atomic universe. The forces are electric charges. Ideal beauty no longer belongs to a caste of stupid heroes; to robots. It coincides with the representation of nuclear man and his space."¹⁵ In the next few years the group would explore this doubled-edged sword idea of unlimited nuclear progress and the risk of catastrophic global annihilation, in which Baj's paintings of ravaged toxic landscapes and viscous mutated figures can be contrasted with Joe C. Colombo's fantastical visions of futuristic nuclear cities where man could exploit the advances in atomic science to create a better way of living.

On April 28, 1952, the Milan newspaper <u>Corriere Lombardo</u> published an extended article by Jack Schemeil on Salvador Dalí, in which the Catalan painter spoke of his interest in Nuclear Mysticism.¹⁶ The piece began with a detailed account of the artist's special audience with Pope Pius XII on November 23, 1949, during which Dalí

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had presented his first version of **The Madonna of Port Lligat**. The painting apparently met with the Pontiff's approval and in the spirit of a Holy Year he blessed the work, thus paving the way for the artist's gradual acceptance by the Catholic Church, despite his vehement anti-clerical stance of the 1920s and 1930s. This meeting had encouraged the artist to pursue his interest in Nuclear Mysticism, based on the recent research of Enrico Fermi and other atomic physicists, which he believed would herald the end of the era of atheist materialism and rationalism that began with the French Revolution, since new discoveries concerning the nature of energy and matter had confirmed to Dalí that science and religion were once again becoming unified. And here I would mention as a key source text, Ronald A. Knox's God and the Atom, which Dalí read in a Spanish translation published in Santiago, Chile, in 1948, whose first chapter, entitled "trauma" begins with the atomic explosion in Hiroshima, before going on to make explicit connections between religion and science in the atomic age.¹⁷ Dalí covered the entire front pages of this volume with pencil drawings depicting splitting atoms and nuclear explosions, thus providing us with crucial evidence of his excited reaction to reading Knox's book, which is now preserved at the Fundacío Gala-Salvador Dalí in Figueres.¹⁸

The Milan newspaper article ended with Dalí's prediction that his next painting would be an explosive "Madonna Atomica," which he would eventually complete at the end of 1952, at which point he re-titled it **Assumpta Corpus Lapislazulina**, after the sumptuous blue color that saturates the painting. Much to the chagrin of Baj, Dangelo and Colombo, their hometown newspaper made no mention of their own nuclear paintings, which had been shown at the Galerie San Fedele in Milan just six months earlier. The group's anger at this omission was exacerbated by Dalí's claims to be the first painter of the Atomic Age, as well as his efforts to unify science and religion under the rubric of Nuclear Mysticism, which formulated a positive response to the advent of nuclear weapons that was diametrically opposed to their own cataclysmic vision of the world during the Cold War arms race that, to them, represented a form of state-level psychosis. While Dalí was reading Ronald A. Knox's comforting vision of a nuclear paradise on earth, in which the dangers of radioactive fallout never appear to cross the author's mind, Baj and his colleagues were understandably paralyzed with fear by the

American science-fiction writer Robert Heinlein's 1940 short story <u>Solution</u> <u>Unsatifactory</u>, which predicted the development of fiercely destructive radiological weapons by scientists working in the United States.¹⁹ These weapons were used to end the Second World War, after Berlin was covered in radioactive dust that contaminated the entire population of the city and its environs, but their power was such that, by the end of the story, only the imposition of a worldwide military dictatorship can prevent the inevitable planetary catastrophe.²⁰

Against the advice of his Nuclear Art colleagues, Baj decided to pursue legal proceedings against Dalí, claiming that the Catalan artist had violated Article 6B of the Berne Convention, which protects an artist's copyright and royalties.²¹ In a court hearing in Milan, Baj claimed that Dali's statement to the press in April 1952 that he was the first artist to make paintings derived from nuclear physics was demonstrably false and he requested, under the rights afforded him by international law, that Dalí be restrained from furthering his aim of establishing himself as the pioneer of nuclear art.²² At the Milan hearing, which took place in April 1953, Baj attempted to substantiate his own right to be recognized as the father of atomic art by referring to the exhibition of his nuclear paintings, such as Little Boy and Immaculate Conception, at the Gallerie San Fedele in Milan in November 1951. According to the Italian artist, his intention in these paintings was to symbolize the liberation of vast amounts of energy through nuclear fission (when the atom is split into two or more parts), as well as to highlight the deadly aftermath of the detonation of nuclear bombs, which create a host of unstable radioactive isotopes, both by burning their own nuclear fuel and by irradiating material close to the explosion.²³

The ironically titled **Immaculate Conception** reveals the shocking reality of radiation fallout, in which a disturbing fetus-like humanoid exists in a contaminated, toxic environment that has led to its biological mutation. As Stephen Peterson has persuasively argued, this viscous, milky white creature, appearing to have three eyes, can be compared to images of biological devolution and alien mutation found in science fiction horror movies of the 1950s, including **The Thing from Another World** (1951), **Them** (1954), and **Invasion of the Body Snatchers** (1956).²⁴ Given Baj's unqualified admiration for Francis Picabia's work, especially from the Dada period, **Immaculate Conception** may also refer to the blasphemous **La Sainte Vierge (The Blessed Virgin)**, of 1920, in which the inkblot stains on an otherwise pristine white piece of paper can be read as the blood of defloration, menstruation, and childbirth, thus simultaneously suggesting the loss of Mary's virginity *and* the birth of Jesus Christ.²⁵ Baj's three-eyed atomic monster is also brought to life through unconventional means; a mutant offspring, born without a mother - the miraculous product of radioactive contamination.

Baj went on to claim that several of his nuclear paintings were made in 1950, in other words well before Dalí began to publicize himself as the inventor of the art of the atomic age. Unfortunately, Baj was under the false impression that Dalí had not actually painted any works based on his new theories of Nuclear Mysticism, since the Milan newspaper article erroneously referred to the yet-to-be-completed "Atomic Madonna" as his first picture in this vein.²⁶ Baj also appears to have been completely unaware that the artist had issued his Mystical Manifesto in 1951, in which he announced that he was embarking on a new era of mystical painting, informed by quantum physics, in which matter would be represented "in a constant and accelerated process of dematerialization," as seen in works such as **Raphaelesque Head Exploding**.²⁷ In this work, which Dalí completed in the same year, he depicted the head of a Raphael Madonna disintegrating into a swirling mass of elementary particles, inspired by books on nuclear fission and, in particular, the English astrophysicist Arthur Eddington's famous notion that, following the new concepts of modern physics, "if one wanted to give an accurate representation of a table, instead of being compact the table should resemble something like a swarm of flies."²⁸

The Tribunale of Milan found in Baj's favor when Dalí failed to show up in court. However, since Dalí divided his time between Port Lligat, New York and Paris, the Italian artist's lawyer, Paride Accetti, decided to summon the Catalan artist before the courts in Paris, requesting that an injunction be brought against Dalí to prevent him from posturing as the inventor of nuclear painting. However, the Tribunal de la Seine threw out the motion, arguing that since neither party was a French citizen it could not rule on the case.²⁹ Despite this setback, Baj and his lawyer continued to relentlessly pursue the Catalan artist through the courts, before the case finally ended at the Tribunale of Rome in June 1954, when Dalí agreed to sign a legal document in the law offices of Paride Accetti, stating that he would never again declare himself to the inventor of nuclear painting (and it is extremely telling that after 1954, Dalí's work and rhetoric begins to moves away from Nuclear Mysticism, which was replaced by new obsessions, such as Anti-Matter and the spiraling double helix of Francis Crick and James Watson's 1953 discovery of the molecular structure of DNA).³⁰

In a recent telephone interview, Baj's Nuclear Art colleague Sergio Dangelo told me that he had profoundly disagreed at the time with his friend's legal proceedings against Dalí, which he thought were "ridiculous" and "a lost cause," since the idea of nuclear painting was so widespread by the early 1950s that it would be impossible to prove who initiated it.³¹ For example, Baj and Dangelo were fully aware of a French artist called Germaine Journard who had published a manifesto of nuclear painting in Brussels, that was reprinted in the French newspaper Ici Paris on June 12, 1950, to say nothing of the all-over, poured compositions of Pollock or the chaotic, heavily scumbled oil paintings of Wols, which were both interpreted at the time as symbolizing atomic energy, explosions, chaos, and disorder. Much closer to home, the Argentinian-born, Italian artist Lucio Fontana had launched the Spatial Art movement in Milan in 1947, which called for new art forms using new materials to respond to recent scientific discoveries, especially the destructive energy of the atom bomb. Finally, Dangelo conceded that it was the Italian Futurist painter Fortunato Depero who had coined the term "nuclear painting" in his 1950 Manifesto of Nuclear Painting and Plastics that was well-known to the artists associated with the Nuclear Art group.³²

Ironically, it had been Dangelo who had brought Dalí's claims to Baj's attention, after hearing through a friend about an earlier interview with the artist in a Spanish newspaper. "The Nuclears are in danger!" he wrote to Baj, since Dalí had declared that, "upon returning to America he will begin NUCLEAR painting."³³ The alarming tone of this missive, which contains a crucial error in that Dalí made his paintings in Port Lligat, before shipping them to the United States for annual exhibitions at commercial galleries in New York, may have provided the catalyst for the ensuing legal battles between Baj and Dalí, especially after the Catalan artist repeated his claims in the international press. Although their objection to Dalí followed the model provided by André Breton, who had fiercely rejected his post-war work on the grounds that he was morally bankrupt, had succumbed to rampant commercialism, and had betrayed the Surrealist cause by embracing the beliefs of the Roman Catholic Church, I do not believe that Baj, Dangelo and Colombo did so to ingratiate themselves with orthodox Surrealism, especially since Baj greatly admired the iconoclastic work and ideas of Francis Picabia, another renegade from the Surrealist movement. It should also be pointed out that Dangelo and Colombo believed at the time that Baj was using the court cases as a publicity stunt to generate exposure for the Nuclear Art movement, and to leave his mark in history.³⁴ Fearing that the trials would permanently end their friendship, Dangelo told Baj that he would not participate in the legal proceedings and left Italy soon thereafter.³⁵

In the end, Baj and his colleagues thoroughly underestimated Dalí profound understanding of nuclear physics, through his readings of Einstein, Eddington, Heisenberg and Fermi, which far surpassed their own researches into this subject, as well as the intuitive and delirious nature of his work, which is much closer in spirit to Nietzsche's "Gay Science" and Alfred Jarry's "Pataphysics" than has perhaps previously been thought. For as Dalí told <u>Playboy</u> magazine in July 1964, "painting is but one single small mode of expressing my own cosmology, which enables me, through my genius and paranoia, to create a synthesis of nature impossible even for the scientist, because the scientist is too much involved in his specialization."³⁶ Dalí believed that it took a perverse polymath like himself, through his mystic reveries and restless imagination, to come up with a paranoiac-critical interpretation of the "creation, destruction, and reintegration of the Universe."³⁷ The irony here is that had Baj, Dangelo and Colombo embraced Dalí's work and invited him to join their group, rather than censoring his contribution to nuclear painting through an extended legal battle, the Nuclear Art movement may have developed into a powerful alternative to the work of the Abstract Expressionists then being heavily promoted in the United States. Dalí shared the Milan artists' antipathy towards the reductive formalism of abstract painting, and his optimistic and profoundly mystical vision of matter constantly in the process of dematerialization and disintegration, although wildly divergent from their own doomsday scenarios of push-button nuclear warfare, only serves to highlight the simultaneously terrifying and exciting possibilities for nuclear painting resulting from the Enola Gay's deadly fifteen-kiloton weapon.

Notes

² Perhaps unsurprisingly, the number of victims at Hiroshima has been hotly debated ever since. The Report of the United States Commission on the effects of strategic bombing gave the figures of 80,000 killed and as many injured, see <u>The United States Strategic Bombing Survey</u>: The Effects of Atomic Bombs on Hiroshima and Nagasaki, Chairman's Office, June 30, 1946, (Washington, D.C.: United States Government Printing Office, 1946), p.3. A survey carried out by the Hiroshima City Council on August 10, 1946 arrived at the following figures for a civilian population of 320,081 on the day of the explosion: 118,661 killed, 30,524 seriously injured, 48,606 slightly injured, and 3,677 missing, see The Committee for the Compilation of Material Damage Caused by the Atomic Bombs in Hiroshima and Nagasaki, <u>Hiroshima and Nagasaki</u>: The Physical, Medical and Social Effects of the Atomic Bombings, trans. Eisei Ishikawa and David L. Swain, (New York: Basic Books, 1981), p.113.

Salemson, (New York: William Morrow and Co., 1976), p.216.

⁴ Dalí's long-term interest in Hannibal is confirmed by the fact that in 1970 he made a gouache and watercolor entitled Hannibal Crossing the Alps, now in the collection of the Salvador Dalí Museum in St. Petersburg, Florida.
⁵ Jean-Paul Sartre, "La guerre et la peur (War and Fear)," <u>Franchise (Notebooks of a France Reborn)</u>, no.3, November-December, 1946, reprinted in Michel Contat and Michel Rybalka, eds., <u>The Writings of Jean-Paul Sartre</u>, <u>Volume 1: A Biographical Life</u>, trans. Richard C. McCleary, (Evanston, Illinois: Northwestern University Press, 1974), p.157. Translation slightly modified by the author.
⁶ Ibid.

⁷ Anonymous, "The Atom Bomb in Oil," <u>Morning World Herald</u>, (Omaha, Nebraska), December 11, 1947, p.12.
 ⁸ Leslie Mallory, "Dalí Unwinds Limp Watch Era, Soul His Realm Now," <u>The Cleveland Plain Dealer</u>, (Cleveland, Ohio), December 3, 1951, p.4.

⁹ Salvador Dalí, <u>Manifeste Mystique</u>, (Paris: Robert J. Godet, 1951), reprinted in an English translation in Haim Finkelstein, <u>The Collected Writings of Salvador Dalí</u>, trans. Haim Finkelstein, (Cambridge: Cambridge University Press, 1998), p.363.

¹⁰ Ibid, p.365.

¹¹ Ibid, p.p.365-366.

¹² Salvador Dalí, "The Decadence of Modern Art," <u>The American Weekly</u>, (Syracuse, New York), no.17, August 20, 1950, p.16.

¹ Fred Doerflinger, "Painter Salvador Dalí Quits Surrealism To Take Fling At New Atomic Age Art," <u>Norwalk</u> <u>Reflector-Herald</u>, (Norwalk, Ohio), February 1, 1952, p.1. This press conference took place during the artist's exhibition at the Lefevre Gallery in London, which opened on December 4, 1951. Among the works on display were **Christ of Saint John of the Cross, Raphaelesque Head Exploding**, and the second version of **The Madonna of Port Lligat**.

¹³ The uranium bomb was called "Little Boy" in reference to President Franklin D. Roosevelt by scientists working in the United States, while the plutonium bomb was dubbed "Fat Man" for British Prime Minister Winston Churchill, see The Committee for the Compilation of Material Damage Caused by the Atomic Bombs in Hiroshima and Nagasaki, <u>Hiroshima and Nagasaki: The Physical, Medical and Social Effects of the Atomic Bombings</u>, trans. Eisei Ishikawa and David L. Swain, (New York: Basic Books, 1981), p.3.

¹⁴ Jean Baudrillard, <u>Enrico Baj</u>, trans. Estelle Rewald, (Paris: Éditions Filipacchi, 1980), p.20.

¹⁵ Enrico Baj and Sergio Dangelo, <u>Manifeste de la peinture nucléaire</u>, Brussels, February 1, 1952, reprinted in Tristan Sauvage [Arturo Schwarz], <u>Nuclear Art</u>, trans. John A. Stevens, (Paris: Éditions Vilo, 1962), p.203. This manifesto was published in conjunction with an exhibition of Baj and Dangelo's work, entitled "Peintures Nucléaires," that opened in March 1952 at Robert Delevoy's Galerie Apollo in Brussels.

¹⁶ Jack Schemeil, "Salvador Dalí presentera al Papa una "Madonna atomica," <u>Corriere Lombardo</u>, (Milan), April 28, 1952, p.1.

¹⁷ Ronald A. Knox, <u>Dios y el Atomo</u>, trans. Gustavo Weigel and R. Tejeda Lawrence, (Santiago, Chile: Empressa Editora Zig-Zag, S.A., 1948).

18 At the "Vida Secreta, Palabra Oculta: Dalí as Writer" symposium at the Instituto Cervantes, Fèlix Fanés suggested the name of Haakon M. Chevalier, who translated <u>The Secret Life of Salvador Dalí</u> into English in 1942, as another possible source for Dalí's post-war interest in atomic physics. Chevalier was a close friend of J. Robert Oppenheimer, the head of the Manhattan Project that developed the atomic bomb during World War II. The two men met in 1937, after Chevalier took a teaching position in the French Department at the University of California in Berkeley, where Oppenheimer had been teaching physics since 1929. Fanés speculated that Chevalier could have provided the artist with crucial information regarding his friend's scientific research at Los Alamos, although this seems unlikely, given the secrecy surrounding these weapons tests, as well as Chevalier's strong opposition to atomic warfare. However, the link between Dalí, Chevalier, and the "father of the atom bomb" is an intriguing one, and certainly warrants further investigation. For more on Chevalier's friendship with Oppenheimer, see Haakon Chevalier, <u>Oppenheimer: The Story of a Friendship</u>, (New York: George Braziller, 1965).

¹⁹ Anson MacDonald [Robert A. Heinlein], "Solution Unsatisfactory," <u>Astounding Science Fiction</u>, May 1941, reprinted in Heinlein, <u>The Worlds of Robert A. Heinlein</u>, (New York: Ace Books, 1966), p.p.142-189.

 20 Given his interest in biological mutation through radioactive contamination, which became a recurring theme in his postwar paintings, Baj may have been drawn to the section of Heinlein's story that dealt with the scientists who developed these radiological weapons, whose long-term health suffered appalling consequences due to their exposure to radiation: "These radiation experts not only ran the chance of cancer and nasty radio-action burns, but the men stood a chance of damaging their germ plasm and then having their wives present them with something horrid in the way of offspring – no chin, for example, and long hairy ears. Nevertheless, they went right ahead and never seemed to get irritated unless something held up their work," Ibid, p.151.

²¹ Michel Seuphor, "Dalí in Nuclear Theft Charge," <u>The Art Digest</u>, (New York), Vol. 27, no.19, August 1953, p.10.
 ²² Ibid.

²³ Ibid.

²⁴ I am extremely grateful to Stephen Peterson for providing me with an advanced copy of the manuscript for his forthcoming book, <u>Space-Age Aesthetics: Lucio Fontana, Yves Klein, and the European Avant-Garde, 1946-1968</u>, which will be published by Penn State Press in 2008. Chapter 3 of this book, tentatively entitled "Explosive Propositions: Artists React to the Atomic Age," includes an extended discussion of the Nuclear Art Movement in Milan.

²⁵ For an important discussion of the complex meanings implied by Picabia's ink spattered drawing, see David Hopkins, "Questioning Dada's Potency: Picabia's 'La Sainte Vierge' and the Dialogue with Duchamp," <u>Art History</u>, Vol.15, no.3, September 1992, p.p.317-333.

²⁶ Jack Schemeil, "Salvador Dalí presentera al Papa una "Madonna atomica," <u>Corriere Lombardo</u>, (Milan), April 28, 1952, p.1.

²⁷ Salvador Dalí, <u>Manifeste Mystique</u>, (Paris: Robert J. Godet, 1951), reprinted in an English translation in Haim Finkelstein, <u>The Collected Writings of Salvador Dalí</u>, trans. Haim Finkelstein, (Cambridge: Cambridge University Press, 1998), p.365.

²⁸ Carlton Lake, <u>In Quest of Dalí</u>, (New York: G.P. Putnam's Sons, 1969), p.48. Dalí was fond of quoting Eddington's famous comparison to explain how modern science had proved that matter, instead of being something continuous, was actually discontinuous. However, Eddington had used a plank of wood, rather than a table, when he first made this analogy in the course of Gifford Lectures that he delivered at the University of Edinburgh in March 1927: "The plank has no solidity of substance. To step on it is like stepping on a swarm of flies. Shall I not slip

through?," see Arthur S. Eddington, <u>The Nature of the Physical World</u>, The Gifford Lectures 1927, (Cambridge: Cambridge University Press, 1928), p.342.

²⁹ Anonymous, "Un confrère de Salvator [sic] Dalí lui conteste le titre de "peinture nucléaire," <u>Journal du Soir</u>, (Lyon), May 16, 1954, p.16.

³⁰ Arturo Schwarz, Letter to the author, March 11, 2005. According to Schwarz, who was a close friend of Baj and the other Nuclear Artists in Milan, "the matter was closed with Dalí's recognition of Baj and Dangelo's primacy." For a complete bibliography of the newspaper articles that covered the court cases in Rome, Paris and Milan, see Enrico Crispolti, <u>Enrico Baj: Catalogo generalle delle opere dal 1972 al 1996</u>, (Milan: Marconi-Menhir, 2004), p.69. ³¹ Sergio Dangelo, Interview with the author, March 15, 2005.

³² Ibid.

³³ Serge Dangelo, undated letter to Enrico Baj, reprinted in Maria Corgnati, <u>Il Movimento Nucleare</u>, (Verona: Edizioni dell'Aurora, 1999), p.100.

³⁴ Sergio Dangelo, Interview with the author, March 15, 2005.

³⁵ Ibid.

³⁶ Anonymous, "Playboy Interview: Salvador Dalí, a candid conversation with the flamboyantly eccentric grand vizier of surrealism," <u>Playboy</u>, (New York), July 1964, p.p.46, 48.

³⁷ David Camelon, "Dalí's "exploding angel,"" <u>The American Weekly</u>, (New York), February 10, 1952, p.15.