

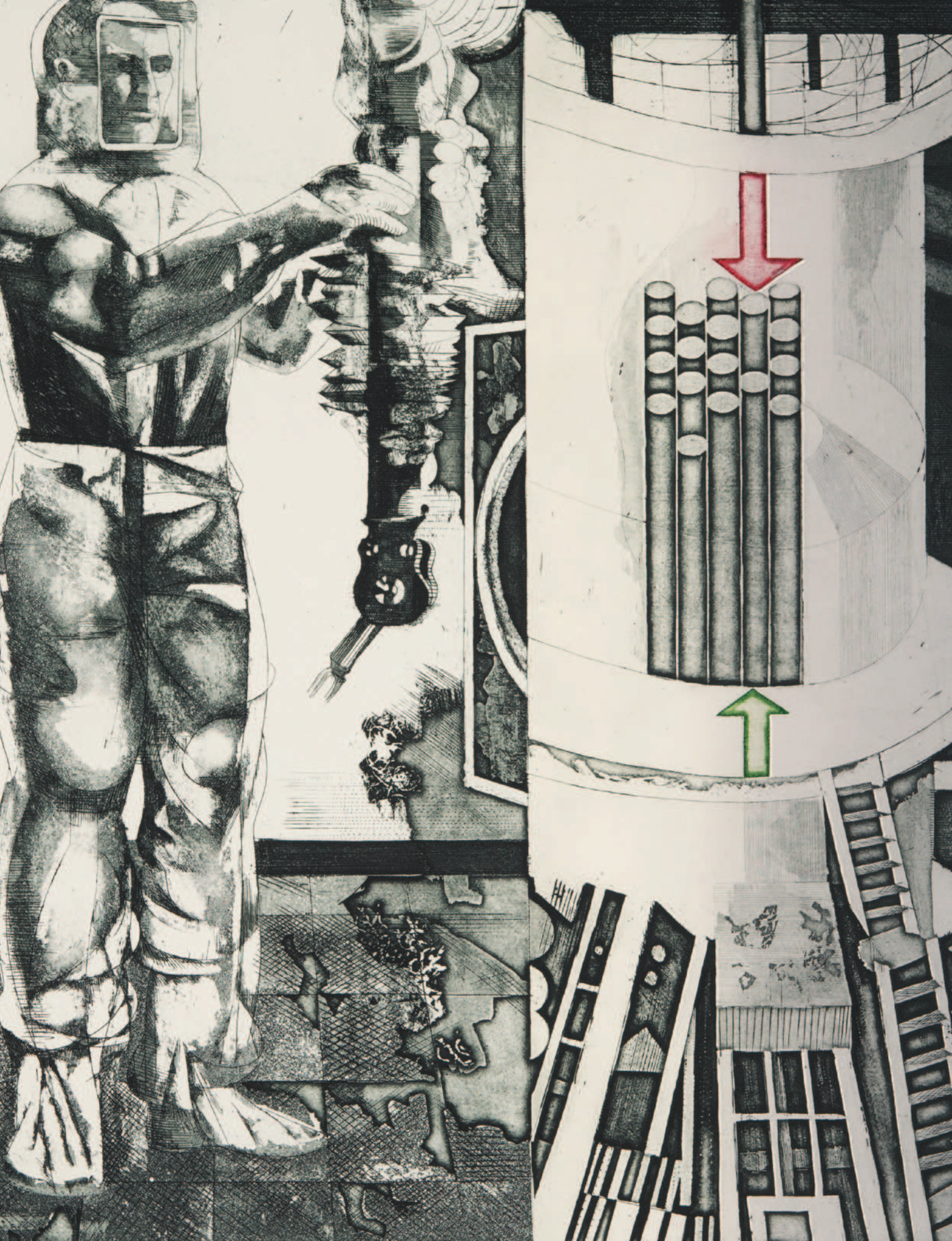


HOT ART

IN A

COLD WAR

Intersections of Art and Science
in the Soviet Era



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Ksenia Nouril

BRUCE MUSEUM | Greenwich, Connecticut

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Catalogue designer:
Anne von Stuelpnagel

Editor:
Martha Zoubek

Project Coordinator:
Kathy Reichenbach

Guest Curator:
Ksenia Nouril

Curator of Science:
Daniel T. Ksepka

Curatorial Assistant:
Kate Dzikiewicz

Registrar:
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Ill. 1

Photo by Jack Abraham
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Ills. 2, 3, 7

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Ill. 5

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Cover:

Ill. 2

Boris Mikhailov (Ukrainian, b. 1938)
Untitled from the series *Sots Art* (detail), 1975–1990

Gelatin silver print handcolored with aniline dyes on paper

Image: 42 x 43.5 cm (16 9/16 x 17 1/8 in.)
Sheet: 59.9 x 50.2 cm (23 9/16 x 19 3/4 in.)

Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union, 2000.1131/01773

Frontispiece:

Ill. 3

Inārs Helmūts (Latvian, b. 1934)
Atomic Reactor (detail), 1976

Etching and aquatint on paper

Image: 49.7 x 64.7 cm (19 9/16 x 25 1/2 in.)
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Page 6:

Ill. 6

Jānis Borgs (Latvian, b. 1946)
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Inside back cover:

Ill. 5

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Untitled (detail), nd

Mixed media on fiberboard

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Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union, 1991.0825/05360

Back cover:

Fig. 3

Chernobyl Tree Section

Scots Pine (*Pinus sylvestris*)

Courtesy of Dr. Timothy A. Mosseau

ACKNOWLEDGMENTS

In an age when there is renewed rivalry between the United States and Russia, it is informative to look back to the era of the space race, when for those of us who are old enough to remember it, the sight of the Soviets' Sputnik crossing the night skies was an unsettling experience.

Hot Art in a Cold War expands upon an exhibition first organized at the Zimmerli Art Museum by Ksenia Nouril, Dodge Fellow and PhD Candidate in Art History at Rutgers, The State University of New Jersey. That exhibition as well as Ms. Nouril's fellowship have been supported by the Avenir Foundation and the Andrew Mellon Foundation. *Hot Art in a Cold War* is co-curated by Ms. Nouril and Dr. Daniel Ksepka, Bruce Museum Curator of Science, who augmented the original art exhibition with Soviet-era science and historical objects.

For loan of science objects and sharing their expertise, we are grateful to the Shannon Whetzel and the Cosmosphere, Nikolay Moiseev of Final Frontier Design, Dr. Timothy A. Mosseau of the University of South Carolina, Ken Winans and the Space Station Museum, and Jay Walker and The Walker Library of the History of the Human Imagination.

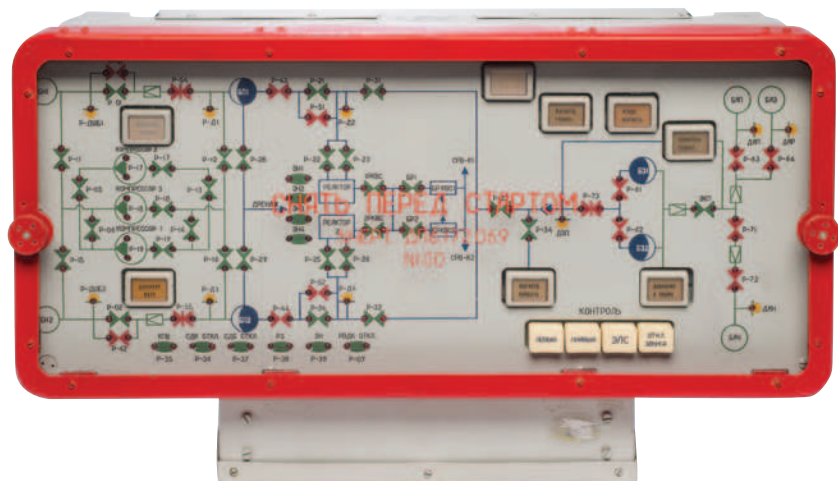
Ksenia Nouril would like to extend her gratitude to the late Norton Dodge, whose passion for creativity touched the lives and works of so many people, and Nancy Ruyle Dodge, who continues unflinchingly to support research on Soviet nonconformist art. Ms. Nouril also would like to thank her mentor Dr. Jane Ashton Sharp, Associate Professor in the Department of Art History at Rutgers, The State University of New Jersey, as well as all the artists included in this exhibition.

At the Bruce Museum, we are grateful for the support of the Committee of Honor, co-chaired by Deborah and Alan Simon and Jacqueline and Arthur Walker. The media sponsor is WSHU.

Peter C. Sutton

The Susan E. Lynch Executive Director

Fig. 1
Spacecraft Control Panel
Space Station Museum
2013.001.083



BUILDING DREAMWORLDS,
FACING CATASTROPHES:
SOVIET ART, SCIENCE
AND THE COLD WAR

Ksenia Nouril



In a 1920 interview with the renowned British science fiction writer H. G. Wells, Vladimir Lenin, founder of the Russian Communist Party and leader of the Russian Revolution, reflected on the potential of space travel. He said, "If we succeed in making contact with other planets, all our philosophical, social, and moral ideals will have to be revised... and [it] will put an end to violence as a necessary means of progress."¹ Lenin made this overly optimistic statement on the backdrop of a bloody civil war precipitated by the deposition of the Czar in October 1917. At this time, space exploration was still a pipe dream, as the science necessary to launch interplanetary rockets was far from developed.² While Lenin's projection was naïve, it is rooted in the utopian promises of scientific advancement that characterized the twentieth century. Unfortunately, as revealed by historian Susan Buck-Morss in her book *Dreamworld and Catastrophe: The Passing of Mass Utopia in East and West*, the hope of using knowledge for the greater good of humanity was quickly shattered by two world wars, genocide, exploitation and destruction—to name just a few of the "phantasmagoric effects that aestheticize the violence of modernity and anaesthetize its victims."³

Hot Art in a Cold War: Intersections of Art and Science in the Soviet Era, on exhibit at the Bruce Museum, examines one of the dominant concerns of Soviet unofficial artists—and citizens everywhere—in the second half of the twentieth century: the positive and negative effects of innovation in science, technology, mathematics, communications and design. Juxtaposing artworks with artifacts, the exhibition traces repercussions of scientific advancement on everyday life in the Soviet Union. Produced between the 1960s and the 1980s, the works on view address themes of international significance during the turbulent period between the Cuban Missile Crisis of 1962 and the establishment of the first modular space station Mir in 1986.⁴ While many unofficial artists working across the Soviet Union embraced technological progress in hope of a better future, some were wary of its effects. They communicated their desires as well as fears through artworks that made prescient proposals still applicable to our world today.

Hot Art in a Cold War features thirty-four works on loan from the Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union at the Zimmerli Art Museum.⁵ Comprised of more than 20,000 works of art created between the 1950s and the early 1990s representing all fifteen republics, it is the largest collection of

nonconformist or unofficial art in the world.⁶ "Unofficial" is a general term applied to all artwork produced in opposition to the state-sanctioned style of Socialist Realism, which typically depicted positive, heroic and idealized subjects unencumbered by the trials and tribulations of the everyday. However, unofficial art was not exclusively motivated by politics, and due to fluctuations in Soviet cultural policy, it may have been acceptable for public exhibition under the ideologically correct circumstances.⁷ Examining several key works from *Hot Art in a Cold War*, this essay argues that the subjects of the nuclear arms and space races were regarded as universal, thus satisfactorily blurring the lines between official and unofficial art in the Soviet Union.⁸

By all historical accounts, Aleksandr Zhitomirsky (1907–1993) was an official artist formally employed by popular state-sponsored periodicals as early as the 1920s.⁹ His photomontage *Ferocious Appetite* (1969) [Ill. 1] makes literal the phrase "sharks of capitalism," which was coined by the Russian writer Nikolai Bukharin in his 1918 treatise *Programme of the World Revolution*. In this photomontage, the artist uses a stock photograph of a decorated American general surveying strategic plans and turns him into a monster with a warhead for a face. Wearing a nameplate with the word "Pentagon" transliterated in Cyrillic letters, he devours a hospital, a school, an office building and numerous links of juicy sausages that fly through his sharp fangs into his large, gaping mouth. Grotesque in nature, this caricature is rooted in Zhitomirsky's pioneering work during the Second World War, when he created pro-Soviet photomontages for the *Front-Illustrierte Zeitung*, a German-language propaganda newspaper distributed by the Soviet Union to German soldiers on the front line. Zhitomirsky's carefully constructed photomontages juxtapose seemingly incongruent objects to produce metaphors that send overtly critical messages. The inclusion of his work in the Dodge Collection may seem contradictory, given the artist's political predilections. It stands in stark contrast to that of unofficial artists, such as Gennady Goushchin (1943–), whose photo collage series *Alternative Museum* (1979) ironically breaks down salient aspects of the Soviet Union's monolithic monoculture years before its eventual demise in 1991.¹⁰

Although Boris Mikhailov (1938–) used photography to subtly undermine the Soviet system for decades, he was first introduced to art through an official channel. In



III. 1
Aleksandr Zhitomirsky
(Russian, 1907–1993)
Ferocious Appetite, 1969
Photocollage on matboard
37.6 x 22.7 cm
(14 13/16 x 8 15/16 in.)
Collection Zimmerli Art
Museum at Rutgers
University, Norton and
Nancy Dodge Collection
of Nonconformist Art
from the Soviet Union,
2000.1569/15428



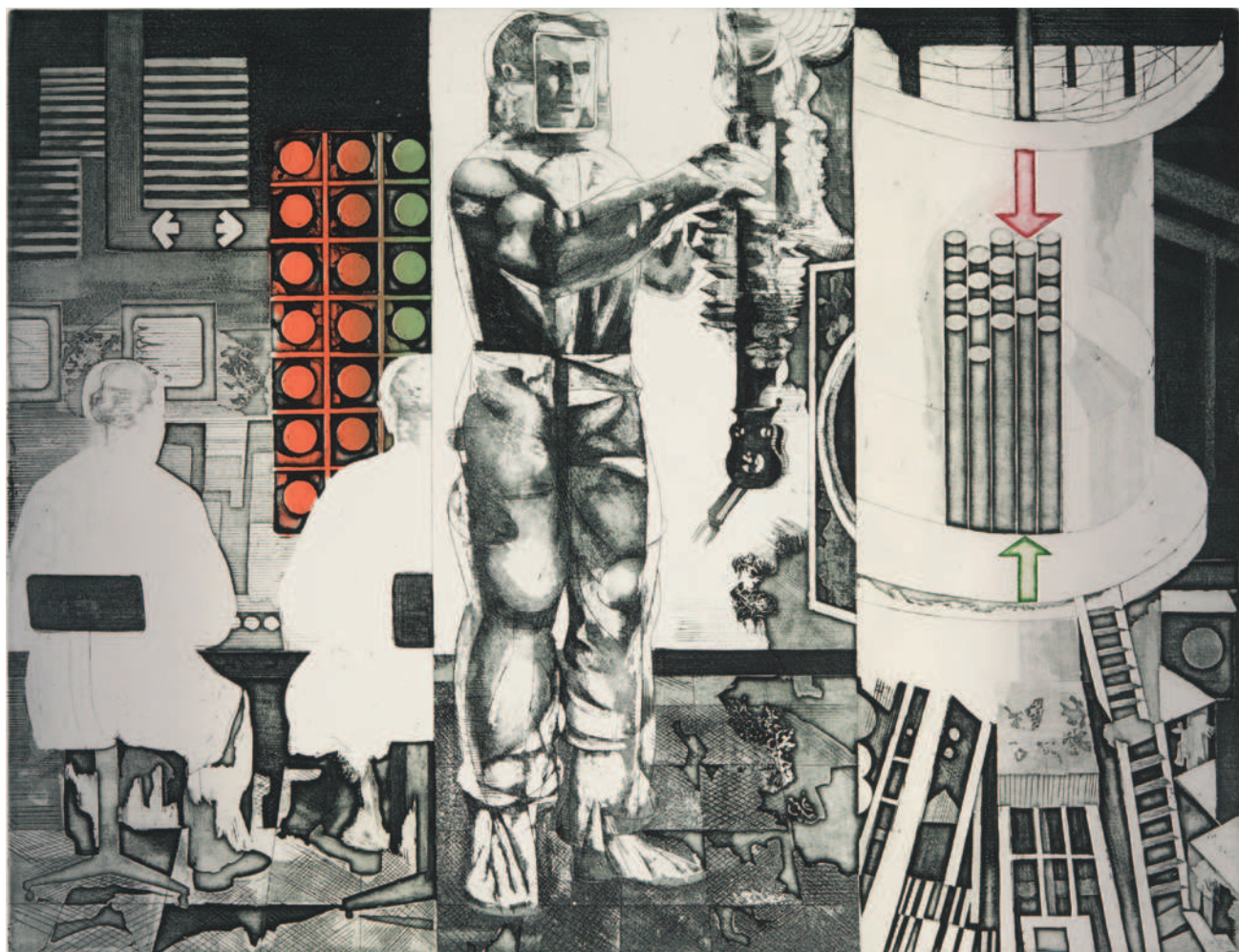
III. 2
Boris Mikhailov (Ukrainian, b. 1938)
Untitled from the series *Sots Art*, 1975–1990
Gelatin silver print handcolored with aniline dyes on paper
Image: 42 x 43.5 cm (16 9/16 x 17 1/8 in.)
Sheet: 59.9 x 50.2 cm (23 9/16 x 19 3/4 in.)
Collection Zimmerli Art Museum at Rutgers University,
Norton and Nancy Dodge Collection of Nonconformist Art
from the Soviet Union, 2000.1131/01773



Opposite: Fig. 2
OZK Protective Suit and
GP-5 Gas Mask
Bruce Museum Collection

1966, while working as an engineer at a factory in his hometown of Kharkiv in Soviet Ukraine, Mikhailov was assigned to produce a short film about the day-to-day operations of the factory.¹¹ He took this opportunity to experiment with the camera, producing a series of nude images of his wife. After being unceremoniously fired, Mikhailov turned to commercial photography, where he developed retouching and other technical skills. For the series *Sots Art*, Mikhailov hand-colored photographs he shot in and around Kharkiv between 1975 and 1990, breathing life into the banal scenes of everyday Soviet existence. The title of this series refers to a movement within unofficial art developed in the early 1970s by Vitaly Komar (1943–) and Alexander Melamid (1945–), who adapted the symbols of Socialist—shortened in Russian to *Sots*—Realism in works that were profoundly sardonic and unabashedly irreverent. In one of Mikhailov's photographs [III. 2], two boys dressed in uniforms customary of elementary military training courses (*nachal'naia voennaia podgotovka*) model gas masks under the watchful eye of their teacher. In this didactic moment of emergency preparedness, the boys are transformed into monsters. With its garish colors and bizarre imagery, Mikhailov's photograph does not reassure its viewer but sounds the alarm of an impending nuclear attack.

The nuclear arms race marked the Cold War, a period in which there was no "hot" war or large-scale, direct fighting between the superpowers, the United States and the Soviet Union. With American President Dwight D. Eisenhower's "Atoms for Peace" speech and the opening of the first nuclear power station in the Soviet Union in the early 1950s, both countries welcomed the seemingly positive byproducts of atomic energy. That is, until the 1986 Chernobyl disaster, which resulted in a devastating release of radioactive material over Ukraine, Belarus,



Ill. 3
Inārs Helmūts (Latvian, b. 1934)
Atomic Reactor, 1975
Etching and aquatint on paper
Image: 49.7 x 64.7 cm (19 9/16 x 25 1/2 in.)
Sheet: 63 x 80.7 cm (24 13/16 x 31 3/4 in.)
Collection Zimmerli Art Museum at Rutgers University,
Norton and Nancy Dodge Collection of Nonconformist Art
from the Soviet Union, D09523

Russia and parts of Europe.¹² *Atomic Reactor* (1975) [Ill. 3], by Latvian printmaker Inārs Helmūts, provides a detailed depiction of a nuclear power plant, from the control desk to the reactor's core. In the center of this tripartite composition, a worker wears a hazmat suit, protecting him against radiation poisoning. Helmūts was inspired to make this work after visiting a friend who worked in a newly built atomic reactor in Soviet Latvia.

If life on Earth was destined to be short-lived, then surely life in space and, hypothetically, on other planets was more promising. Such utopian ideas buoyed citizens in both the United States and the Soviet Union, as they anxiously waited to see the launch of the first human into space. *Laika*



Opposite: Figs. 3–4
Chernobyl Tree Section
Scots Pine (*Pinus sylvestris*)
Courtesy of Dr. Timothy A.
Mosseau

DP-5B Geiger Counter
Bruce Museum Collection

Cigarette Box (1972) [Ill. 4] by Komar and Melamid appropriates the graphic identity of the Soviet cigarettes that paid homage to Laika, the first animal to orbit the Earth.¹³ In a recent conversation, Komar recalled the impetus for the painting: the forbidden style of American pop art. "We loved pop art and saw examples of it in books," he said. "American artists used cigarette logos in their works, why couldn't we?"¹⁴ Rendered in a cubist style that breaks down the composition into distinct crystalline parts, the playfully repurposed logo draws attention to the use of Laika's image as unabashed propaganda. Like the other dogs conscripted into the Soviet space program, Laika was a small mixed-breed rescued from the streets of Moscow, chosen on account of her resilience.¹⁵ At the Institute of Aviation Medicine, Laika underwent rigorous training in order to fly aboard the satellite Sputnik 2 in November 1957. While she sadly perished in flight, Laika paved the way for future missions with animals by the Soviet and other space programs. Details of these Soviet missions, including the fate of their sentient subjects, were classified as top secret and revealed only after the fall of the Soviet Union.



Fig. 5
Dog Spacesuit and
Ejection Seat
Replica
Courtesy of Nikolay Moiseev

Opposite: Ill. 4
Vitaly Komar
(Russian, b. 1943) and
Alexander Melamid
(Russian, b. 1945)
Laika Cigarette Box (from
Sots Art series), 1972
Oil on canvas
77.5 x 58.4 cm
(30 1/2 x 23 in.)
Courtesy the artists and
Ronald Feldman Gallery,
New York



Like their canine compatriots, cosmonauts—Soviet astronauts—were lauded as heroes. Symbols of the Soviet Union's victories over the United States, cosmonauts like Yuri Gagarin, the first human to orbit the Earth, were popular culture icons depicted by official and unofficial artists equally. *Cosmonaut Anatoly Berezovoy* (1983) by Mikhail Borisov (1950–) renders the cosmonaut in an unusual moment of respite, preparing a meal of fresh sausage and lemon with zero gravity. Berezovoy (1942–2014) was the commander of the first mission to the space station Salyut 7 in 1982. His 211 days in space were honored on a stamp issued by the Soviet Post Office. In the 1990s, Berezovoy continued his service to cosmonautics, acting as the deputy president of Russian Space Federation, the equivalent of the National Aeronautics and Space Administration (NASA) in the United States.



Fig. 6
Cosmonaut Food
Bruce Museum Collection

Fig. 7
Space Oven
Space Station Museum



Despite the negative effects of its cutthroat competition, the space race opened up new worlds previously deemed unimaginable. Artists especially were interested in reenvisioning both natural and artificial environments as a result of these developments. The impact of these new ways of seeing was strongly felt among Soviet artists—many of whom could not legally travel outside the Soviet Union. Inspired by the potential of life in space, they used their imaginations to see beyond the confines of their immediate surroundings.

In the Estonian Soviet Socialist Republic, Raul Meel (1941–) trained as an engineer at Tallinn's Polytechnic Institute from 1959 to 1964 before independently pursuing a career as an artist. His academic roots are revealed in *Under the Sky* (1973–1979), a series of large-scale screenprints based on the parabolic curve.¹⁶ Through the manipulation of this form, Meel translates the abstract language of mathematics into art. For Meel, this form represents more than just a lifeless equation; it possesses the warmth of humanity. "I remember a specific 'epiphany,'" says the artist. "The professor was drawing the graph of a certain function on the board, and I thought... this line is like a comparative image for human life."¹⁷ While Meel made several failed attempts at exhibiting *Under the Sky* in Soviet Estonia, prints from this series were included in an exhibition of graphic art at the Riga State Planetarium in April 1979. Organized by the Latvian artist Jānis Borgs (1946–), the exhibition promoted an overtly intra-Baltic dialogue within the context of an official venue, coopting institutional authority to legitimize artwork that was politically subversive. Although the patterns of Meel's series are innocently rooted in the coordinate system of geometry, its colors—white, black and blue—reference the flag of the Estonian Republic, which was outlawed under Soviet rule.

In Moscow, Kyiv-born artist Petr Belenok (1938–1991) actively exhibited within unofficial art circles. He participated in the Second Autumn Open-Air Exhibition in 1974, which was begrudgingly sanctioned after the earlier Bulldozer Exhibition in which Soviet authorities deliberately destroyed the works of unofficial artists. While acquainted with well-known nonconformists, such as Oskar Rabin (1928–), Ilya Kabakov (1933–) and Igor Palmin (1933–), Belenok kept to himself, developing his own style, called "panic realism." Using a color palette primarily of black and white, he merged tiny, hyperrealist figures with expansive, abstract landscapes rendered in broad, bold brushstrokes. His works



Opposite: Ill. 5
Petr Belenok
(Ukrainian, 1938–1991)
Untitled, nd
Mixed media on fiberboard
107.5 x 73.4 cm
(42 5/16 x 28 7/8 in.)
Collection Zimmerli Art
Museum at Rutgers
University, Norton and
Nancy Dodge Collection
of Nonconformist Art
from the Soviet Union,
1991.0825/05360

Figs. 8–9
Lunokhod Rover
Model
Space Station Museum

Lunokhod Rover Tire
Prototype
Space Station Museum

[Ill. 5] in this style depict dramatic, apocalyptic scenes in imaginary, cosmic spaces.

Closer to home on planet Earth, Borgs' *Dynamic City* (1976) [Ill. 6] proposes a large-scale, electro-kinetic clock and graphic mural on the wall of a building on the corner of Cēsu and Lenin (now Brīvības) Streets in Riga. He created two additional designs for locations where geometric kinetic objects would intervene in architecture. The proposals were included in *For Our City*, an exhibition of monumental and decorative arts at the Riga Architecture and Urban Development Propaganda Center in 1978.¹⁸ Borgs' work took its name from a drawing by Gustav Klucis (1895–1938), the early twentieth-century artist of Latvian origin associated with the Russian avant-garde. Like Klucis, Borgs had utopian dreams of building a new and better life in the Soviet Union, but unfortunately, his *Dynamic City* was never realized due to a lack of funding and materials.

Valdis Celms (1943–) also faced challenges in his proposal for *Positron* (1976), a public sculpture to be built on the grounds of an electronics factory in the Ukrainian city of



Ivano-Frankivsk. A positron, or positive electron, is a positively charged subatomic particle, which, when unstable, can produce radiation. Trained as an interior designer at the Latvian Academy of Art in the late 1960s, Celms had little direct experience with chemistry and physics; yet he likely was inspired by the potential of the positron when naming his project. Although never realized due to the scarcity of resources, *Positron* is an excellent example of kinetic art, which enhances typically three-dimensional constructions with movement, light and even sound.¹⁹ If realized,

III. 6

Jānis Borģis
(Latvian, b. 1946)
Dynamic City, 1976
Gouache and oil pastel
on photograph mounted
on plywood
79.5 x 79.5 cm
(31 5/16 x 31 5/16 in.)
Collection Zimmerli Art
Museum at Rutgers
University, Norton and
Nancy Dodge Collection of
Nonconformist Art from the
Soviet Union, D16987

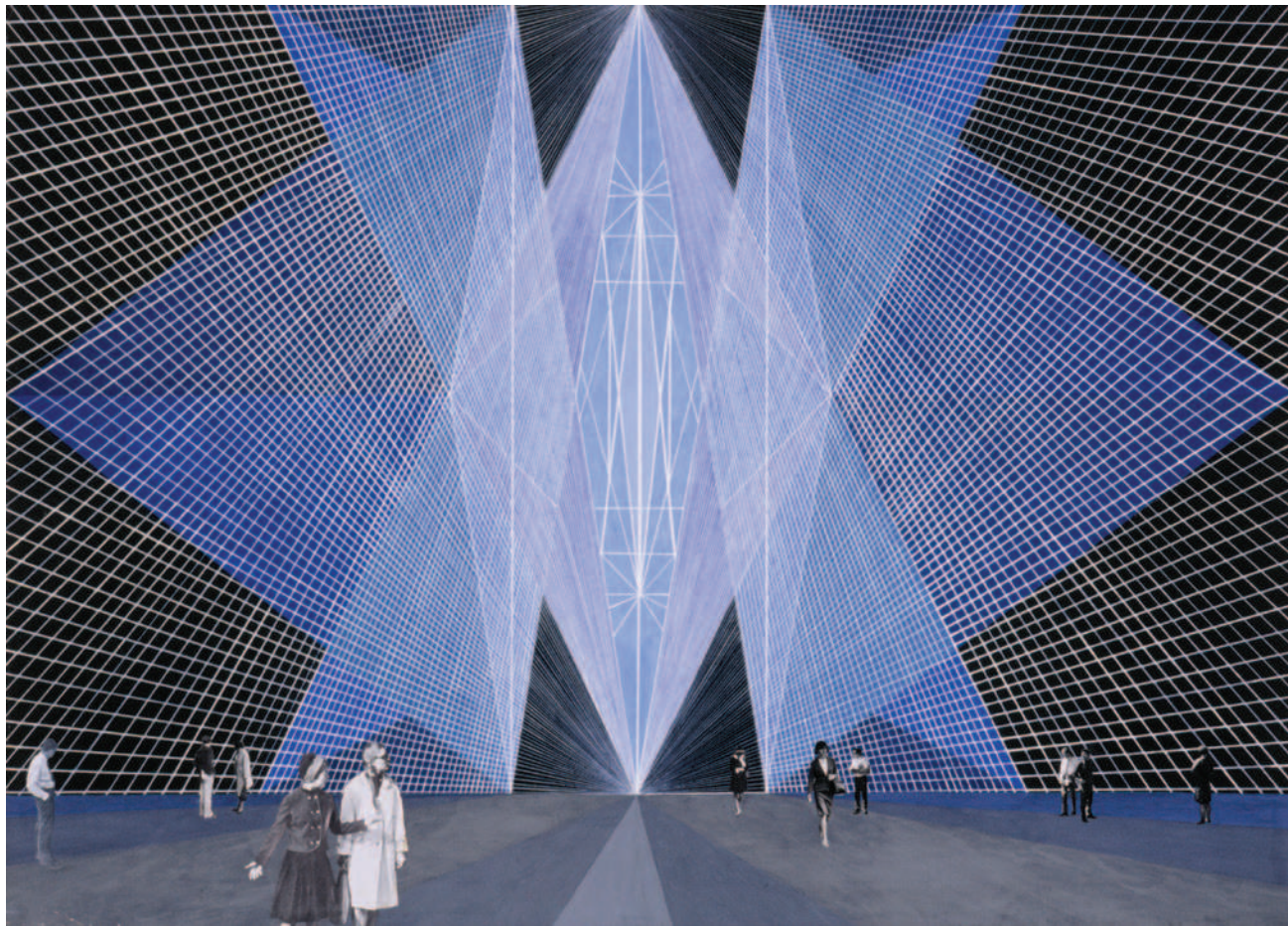
III. 7

Valdis Celms
(Latvian, b. 1943)
*Sketch of Positron's Light
Program "Holiday-I"*, 1977
Gouache, ink and graphite
on paperboard
84 x 60 cm
(33 1/16 x 23 5/8 in.)
Collection Zimmerli Art
Museum at Rutgers
University, Norton and
Nancy Dodge Collection of
Nonconformist Art from the
Soviet Union, D19052



Positron would have rotated and emitted patterns of colorful light [III. 7], producing psychological and emotional effects meant to relax the factory's workers and lift overall morale.

In Soviet Russia, kinetic art was dominated by Dvizhenie (Movement Group), a short-lived, loose collective of artists, including Galina Bitt (1946–), Francisco Infante-Arana (1943–), Viacheslav Koleichuk (1941–), Lev Nussberg (1937–), Natalia Prokuratova (1948–) and others. While aspects of the group's history remain under dispute, they worked together in Moscow



in the mid- to late 1960s sharing an interest in synthesizing art and science through kinetic objects and environments. Nussberg concretized their practice in his "Kinetic Manifesto," written in 1966 and subsequently published abroad in Yugoslav, British and Czechoslovak periodicals.²⁰ This manifesto calls for the creation of a world institute of kineticism, harnessing the utopian idea of global integration at the height of the Cold War. Dvizhenie went on to exhibit in both official and unofficial art and science institutions, most notably the Kurchatov Institute for Atomic Energy and the Institute of High Temperatures in Moscow.²¹ Displaying the principles of movement, symmetry and synthesis, the photo collage *Altar for the Temple of the Spirit (Sketch for the Creation of an Altar at the Institute of Kinetics)* (1969–1970) [Ill. 8] presents a hybrid construction that ensconces figures within a fantastical, atemporal crystalline space.

In its structure, this space recalls *Artificial Space Crystal* (1972), an installation by Francisco Infante-Arana, a founding member of Dvizhenie, who went on to form the

Ill. 8
Lev Nussberg
(Russian, b. Uzbekistan, 1937)
and Natalia Prokuratova
(Russian, b. 1948)
Altar for the Temple of the Spirit (Sketch for the Creation of an Altar at the Institute of Kinetics), 1969–1970
Tempera and photocollage
on paper
61.8 x 86.4 cm
(24 5/16 x 34 in.)
Collection Zimmerli Art
Museum at Rutgers
University. Gift of Dieter and
Jutta Steiner
2003.0154



Ill. 9
Francisco Infante-Arana
(Russian, b. 1943)
Installation of "Artificial Space Crystal" (VDNKh, Moscow), n.d.
Gelatin silver print on paper
mounted on illustration
board
26 x 37.6 cm
(10 1/4 x 14 13/16 in.)
Collection Zimmerli Art
Museum at Rutgers
University, Norton and
Nancy Dodge Collection of
Nonconformist Art
from the Soviet Union,
1995.0674.003/07343

Authors' Working Group (ARGO) in 1970. The project was funded by the State Glass Institute and exhibited in the Consumer Goods Pavilion at VDNKh (the Exhibition of Achievements of National Economy).²² Today, only black-and-white documentary photographs [Ill. 9] of the installation remain. These photographs show how the layered planes of this temporary kinetic environment reflected and refracted light, fully immersing the viewer.

Their fate in the hands of science, official and unofficial artists were captivated by the events surrounding the nuclear and space races. As featured in this exhibition, their works reflect the anxious realities and utopian fantasies that were part of everyday Soviet life in the second half of the twentieth century. The artists use a variety of media, from documentary photographs and surrealist abstractions to hyperrealist paintings and kinetic sculptures. Together, they offer a glimpse into a troubled past, a promising present and unknown future.

NOTES

1. H. G. Wells, "The Dreamer in the Kremlin," in *Russia in the Shadows* (New York: Doran, 1921), 145-68 as cited in Richard Stites, *Revolutionary Dreams: Utopian Vision and Experimental Life in the Russian Revolution* (Oxford: Oxford University Press, 1989), 42.
2. Rockets propelled by gunpowder had been in use since the thirteenth century. In the early twentieth century, rocket technology was advanced through the use of liquid, gas and more advanced solid fuels. Russian scientist and philosopher Konstantin Tsiolkovsky (1857-1935) published an equation for rocket propulsion in 1903. Now heralded as the father of Soviet cosmonautics, Tsiolkovsky went unrecognized for decades, only rising to prominence in the 1920s. For more information on Tsiolkovsky and his influence, see Asif A. Siddiqi, *The Red Rockets' Glare: Spaceflight and the Soviet Imagination, 1857-1957* (Cambridge: Cambridge University Press, 2010), 16-41 and Olesya Turkina, "The Cosmic Voyages of Konstantin Tsiolkovsky," in *El Cosmos de la Vanguardia Rusa: Arte y Exploración Espacial 1900-1930* [The Cosmos of the Russian Vanguard: Art and Space Exploration 1900-1930], eds. John E. Bowit, Nicoletta Mislér, and Maria Tsantsanoglou (Santander: Fundación Marcelino Botín, 2010), 339-342.
3. Susan Buck-Morss, *Dreamworld and Catastrophe: The Passing of Mass Utopia in East and West* (Cambridge: The MIT Press, 2002), xi. The title of this book inspired my exhibition *Dreamworlds and Catastrophes: Intersections of Art and Science in the Dodge Collection* (March 12-July 31, 2016) at the Zimmerli Art Museum, which serves as the foundation for *Hot Art in a Cold War: Intersections of Art and Science in the Soviet Era* at the Bruce Museum (January 27-May 20, 2018).
4. In Russian, *mir* [мир] is a homonym, meaning both "world" and "peace."
5. The Zimmerli Art Museum is part of Rutgers, The State University of New Jersey. For its institutional history, see "About the Museum," *Zimmerli Art Museum*, accessed 12 November 2017, <http://www.zimmerlimuseum.rutgers.edu/about/about-museum#.WgiOmraZO1s>.
6. The late economist and philanthropist Norton Townshend Dodge (1927-2011) and his wife Nancy Ruyle Dodge gifted 4,000 works to the Zimmerli in 1991. An additional 17,300 works were officially gifted in November 2017. For more information on the Dodges and their collection, see Alla Rosenfeld and Norton T. Dodge, eds. *From Gulag to Glasnost Nonconformist Art from the Soviet Union* (New York: Thames and Hudson, 1995) and John McPhee, *The Ransom of Russian Art* (New York: Farrar Straus Giroux, 1994).
7. For more information on the self-identification of unofficial artists, see Renee Baigell and Matthew Baigell, *Soviet Dissident Artists: Interviews After Perestroika* (New Brunswick: Rutgers University Press, 1995).
8. My research is inspired by recent revisionist histories produced within and outside the field of Soviet art, most notably John Curley's transnational study *A Conspiracy of Images: Andy Warhol, Gerhard Richter, and the Art of the Cold War* (New Haven: Yale University Press, 2013). Theorizing paintings as "double agents" that actively blur and even breakdown accepted binaries, Curley rewrites a history of post-war art that embraces the ideological mutability of images.
9. For the most recent and comprehensive study of Zhitomirsky's work, see Erika Wolf, *Aleksandr Zhitomirsky: Photomontage as a Weapon of*

- World War II and the Cold War* (Chicago: The Art Institute of Chicago, 2016). For an in-depth study of Zhitomirsky's photomontages in the Dodge Collection, see Konstantin Akinsha, "Alexander Zhitomirsky: The Last Photomontagist," *Zimmerli Journal* 4 (Fall 2006): 66-75. Zhitomirsky's own impressions on photomontage can be found in Aleksandr Zhitomirsky, *Iskusstvo politicheskogo fotomontazha: Sovety khudozhnikov* [The Art of Political Photomontage: Advice to the Artist] (Moscow: Plakat, 1983).
10. For a compressive survey of photography in the Dodge Collection, see Diane Neumaier, ed. *Beyond Memory: Soviet Nonconformist Photography and Photo-Related Works of Art* (New Brunswick: Rutgers University Press, 2004).
 11. Gilda Williams, *Boris Mikhailov* (London: Phaidon, 2001), 7.
 12. According to the World Nuclear Association, a fee-based organization whose members have vested interests in the business of nuclear power, "Nuclear power is a safe means of generating electricity." See "Safety of Nuclear Power Reactors," *World Nuclear Association*, May 2016, accessed 13 November 2017, <http://www.world-nuclear.org/information-library/safety-and-security/safety-of-plants/safety-of-nuclear-power-reactors.aspx>
 13. Laika roughly translates as "Barker," as the name is derived from the Russian verb "to bark" (лаять).
 14. Vitaly Komar in a telephone conversation with the author, 3 November 2017.
 15. For a comprehensive study of canines and the Soviet space program, see Olesya Turkina, *Soviet Space Dogs*, trans. Inna Cannon and Lisa Wasserman (London: Fuel Design & Publishing, 2014).
 16. For a discussion of the series' title, see Eha Komissarov, Ragne Nukk and Raivo Kelomees, eds. Raul Meel: Dialogues with Infinity (Tallinn: The Art Museum of Estonia - Kumu Art Museum, 2014).
 17. Translated transcript of "The Conspectus of the Past" by Raul Meel, Archives of the Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union, Zimmerli Art Museum, New Brunswick, New Jersey, United States.
 18. Mark Allen Svede, "Modernism, Ballism, Plagiarism: Latvia' Avant-Garde under Fire," in *Art of the Baltics: The Struggle for Freedom of Artistic Expression Under the Soviets, 1945-1991* (New Brunswick: Rutgers University Press, 2002), 237-238. For a comprehensive interview with Borgs, see Ieva Astahovksa and Jānis Borgs, "Jānis Borgs: Interview by Ieva Astahovska," in *The Self: Personalities on the Road to Contemporary Art - The 1960s-1980s in Soviet Latvia*, ed. Helēna Demakova (Riga: Ministry of Culture of the Republic of Latvia, 2011), 56-95.
 19. For the artist's definition of kinetic art, see Valdis Celms, "The Dialectic of Motion and Stasis in Kinetic Art," *Leonardo* 27, 5 (1994): 387-390.
 20. Lev Nussberg, *A Kinetic Manifesto* (1966), in *Soviet Art in Exile*, eds. Igor Golomshtok and Alexander Glezer (New York: Random House, 1977), 164.
 21. Jane Sharp, "The Personal Visions and Public Spaces of the Movement Group (Dvizhenie)," in *Cold War Modern: Design, 1945-1970*, eds. David Crowley and Jane Pavitt (London: V&A Publishing, 2008), 234-241.
 22. Francisco Infante, "Artificially Created Spaces: The Projects and Realizations of the ARGO Group," *The Journal of Decorative and Propaganda Arts* 5 (Summer 1987), 112-125.

Fig. 10
Soyuz Spacecraft Thruster
Space Station Museum
2013.001.054



CHECKLIST OF THE EXHIBITION

ATOMIC ANTICIPATIONS AND ANXIETIES

Roman Cieślęwicz (Polish, 1930–1996)
Opus International, Volume 1, Issue 4, 1967
27 x 18 cm (10 1/2 x 7 in.)
Private Collection

Erik Bulatov (Russian, b. 1933)
Study fo *The Soviet Cosmos*, 1977
Color pencil and graphite on paper
Image: 26 x 20 cm (10 1/4 x 7 7/8 in.)
Sheet: 27.5 x 21.5 cm (10 13/16 x 8 7/16 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union 1991.0857

Erik Bulatov (Russian, b. 1933)
XXth Century, 1990
Color pencil and graphite on paper
Image: 20 x 20 cm (7 7/8 x 7 7/8 in.)
Sheet: 27.8 x 27.5 cm (10 15/16 x 10 13/16 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union 2005.0093

Gennady Goushchin (Russian, b. 1943)
Sunset in the Bolshoi Theater from the series Alternative Museum, 1979
Photocollage on paper
Overall: 33.4 x 51.1 cm (13 1/8 x 20 1/8 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union 2001.1189

Aleksander Zhitomirsky (Russian, 1907–1993)
In the Stone Jungle, 1965
Photocollage on matboard
Image: 26 x 25 cm (10 1/4 x 9 13/16 in.)
Sheet: 30.8 x 40.7 cm (12 1/8 x 16 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union 2000.1566

Aleksander Zhitomirsky (Russian, 1907–1993)
Ferocious Appetite, 1969
Photocollage on matboard
Image: 37.6 x 22.7 cm (14 13/16 x 8 15/16 in.)
Sheet: 37.6 x 22.7 cm (14 13/16 x 8 15/16 in.)
Collection Zimmerli Art Museum at Rutgers

University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union 2000.1569

Boris Mikhailov (Ukrainian, b. 1938)
Untitled from the series *Sots Art*, 1975–1990
Gelatin silver print handcolored with aniline dyes on paper
Image: 42 x 43.5 cm (16 9/16 x 17 1/8 in.)
Sheet: 59.9 x 50.2 cm (23 9/16 x 19 3/4 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union 2000.1131

Inārs Helmūts (Latvian, b. 1934)
Atomic Reactor, 1975
Etching and aquatint on paper
Image: 49.7 x 64.7 cm (19 9/16 x 25 1/2 in.)
Sheet: 63 x 80.7 cm (24 13/16 x 31 3/4 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D09523

Jaan Elken (Estonian, b. 1954)
In a Laboratory, 1980
Oil on canvas
73.3 x 75.3 cm (28 7/8 x 29 5/8 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D06032

Duck and Cover
Video, run time: 9:40 minutes

Soviet Civil Defense "Most Importantly—Don't Panic"
Video, run time: 4:40 minutes

Nuclear ICBM Launch Keys
Replicas
Bruce Museum Collection

OZK Protective Suit and GP-5 Gas Mask
Bruce Museum Collection

DP-5B Geiger Counter
Bruce Museum Collection

Chernobyl Tree Section
Scots Pine (*Pinus sylvestris*)
Courtesy of Dr. Timothy A. Mosseau

FROM SMALL STEPS TO GIANT LEAPS:
THE SPACE RACE

Sputnik-1
Unlaunched back-up
The Walker Library of the History of the Human Imagination

Inārs Helmūts (Latvian, b. 1934)
Countdown from the series *Cosmonauts*, 1976
Etching on paper
Image: 50 x 64.5 cm (19 11/16 x 25 3/8 in.)
Sheet: 62.3 x 81.2 cm (24 1/2 x 31 15/16 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D06979

Inārs Helmūts (Latvian, b. 1934)
Connection from the series *Cosmonauts*, 1976
Etching on paper
Image: 49.5 x 63.7 cm (19 1/2 x 25 1/16 in.)
Sheet: 62.5 x 76.1 cm (24 5/8 x 29 15/16 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D09698

Mikhail Borisov (Russian, b. 1950)
Cosmonaut Anatoly Berezovoy, 1983
Oil on canvas
120 x 97 cm (47 1/4 x 38 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D06299

Vitaly Komar (Russian, b. 1943) and Alexander Melamid (Russian, b. 1945)
Laika Cigarette Box (from Sots Art series), 1972
Oil on canvas,
77.5 x 58.4 cm (30 1/2 x 23 in.)
Courtesy the artists and Ronald Feldman Gallery, New York

Laika Cigarette Box
Bruce Museum Collection

Dog Spacesuit and Ejection Seat
Replica
Courtesy of Nikolay Moiseev

Intravascular Flight Suit
Flown on Salyut 6

Cosmosphere 4643
Orlan Spacesuit Glove
Space Station Museum

Space Oven
Space Station Museum

Cosmonaut Food
Bruce Museum Collection

Pilot Survival Kit
Bruce Museum Collection

TP-82 Space Gun
Replica
Bruce Museum Collection

Soyuz Spacecraft Thruster
Space Station Museum 2013.001.054

Soyuz Spacecraft Clock
Space Station Museum 2013.001.163

Salyut Space Station TV Camera
Space Station Museum Space Station Museum 2013.001.073

Spacecraft Control Panel
Space Station Museum 2013.001.083

COSMIC PERSPECTIVES

Raul Meel (Estonian, b. 1941)
Under the Sky XXXVI, 1974
Color screenprint on paper
Image: 65 x 63 cm (25 9/16 x 24 13/16 in.)
Sheet: 65 x 63 cm (25 9/16 x 24 13/16 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D00626

Raul Meel (Estonian, b. 1941)
Under the Skies XXXI-8, 1973–1977
Color screenprint on paper
Image: 65 x 63 cm (25 9/16 x 24 13/16 in.)
Sheet: 65 x 63 cm (25 9/16 x 24 13/16 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D07073

Raul Meel (Estonian, b. 1941)
XXXI-2 Under The Skies, 1973–1977
Color screenprint on paper
Image: 64.6 x 62.8 cm (25 7/16 x 24 3/4 in.)
Sheet: 64.6 x 62.8 cm (25 7/16 x 24 3/4 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D07067

Raul Meel (Estonian, b. 1941)
Under the Skies XXXI-3, 1973–1977
Color screenprint on paper
Image: 65 x 63 cm (25 9/16 x 24 13/16 in.)
Sheet: 65 x 63 cm (25 9/16 x 24 13/16 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D07068

Raul Meel (Estonian, b. 1941)
Under the Estonian Sky, 1973
Color screenprint on paper
Image: 65.1 x 63.2 cm (25 5/8 x 24 7/8 in.)
Sheet: 65.1 x 63.2 cm (25 5/8 x 24 7/8 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D05838

Raul Meel (Estonian, b. 1941)
Under the Estonian Sky, 1973
Color screenprint on paper
Image: 65 x 63.1 cm (25 9/16 x 24 13/16 in.)
Sheet: 65 x 63.1 cm (25 9/16 x 24 13/16 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D07074

Petr Belenok (Ukrainian, 1938–1991)
In Memory of Tsiolkovsky, 1987
Mixed media on fiberboard
136.6 x 121.5 cm (53 3/4 x 47 3/4 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D05161

Petr Belenok (Ukrainian, 1938–1991)
Untitled, n.d.
Mixed media on fiberboard
107.5 x 73.4 cm (42 5/16 x 28 7/8 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union 1991.0825

Turtles
Testudo horsfieldii casts
Bruce Museum Collection

Lunokhod Rover
Model
Space Station Museum

Lunokhod Rover Tire
Prototype
Space Station Museum

Lunar Globe
Bruce Museum Collection

KINETIC ART IN SOVIET RUSSIA AND LATVIA

Jānis Borgs (Latvian, b. 1946)
Untitled, n.d.
Graphite on paper
30.5 x 20.3 cm (12 x 8 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D11577

Jānis Borgs (Latvian, b. 1946)
Dynamic City, 1976
Gouache and oil pastel on photograph mounted on plywood
79.5 x 79.5 cm (31 5/16 x 31 5/16 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D16987

Valdis Celms (Latvian, b. 1943)
Sketch of Positron's Light Program "Holiday-I", 1977
Gouache, ink and graphite on paperboard
Image: 84 x 60 cm (33 1/16 x 23 5/8 in.)
Sheet: 84 x 60 cm (33 1/16 x 23 5/8 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D19052

Valdis Celms (Latvian, b. 1943)
Sketch of Positron's Light Program "Holiday-II", 1977
Gouache, ink and graphite on paperboard
Image: 84 x 60 cm (33 1/16 x 23 5/8 in.)
Sheet: 84 x 60 cm (33 1/16 x 23 5/8 in.)
Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D19054

Valdis Celms (Latvian, b. 1943)

View of Positron, 1977

Ink and collaged photographs mounted on fiberboard

61 x 104 cm (24 x 40 15/16 in.)

Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D19058

Valdis Celms (Latvian, b. 1943)

View of Positron, 1977

Ink and collaged photograph mounted on fiberboard

61 x 104 cm (24 x 40 15/16 in.)

Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D19059

Valdis Celms (Latvian, b. 1943)

Positron, 1976

Kinetic maquette of steel, paper, and wood
46 x 37 x 40 cm (18 1/8 x 14 9/16 x 15 3/4 in.)

Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D19068

Viacheslav Koleichuk (Russian, b. 1941)

Mobius, designed in 1975, executed in 1985

Brass on wood base

64.5 x 50 x 22 cm (25 3/8 x 19 11/16 x 8 11/16 in.)

Collection Zimmerli Art Museum at Rutgers

University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D12037

Viacheslav Koleichuk (Russian, b. 1941)

Spiral, 1966

Painted wood dowel and wire

52 x 41 cm (20 1/2 x 16 1/8 in.)

Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D12190

Viacheslav Koleichuk (Russian, b. 1941)

Self-Sustaining Tensile Structure, c. 1970

Wood and string

21 x 25 x 25 cm

(8 1/4 x 9 13/16 x 9 13/16 in.)

On loan from the collection of Norton and Nancy Dodge
L04326

Francisco Infante-Arana (Russian, b. 1943)

Installation of "Artificial Space Crystal" (VDNKh, Moscow), n.d.

Gelatin silver print on paper mounted on illustration board

26.2 x 38.2 cm (10 5/16 x 15 1/16 in.)

Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union 1995.0674.002

Francisco Infante-Arana (Russian, b. 1943)

Installation of "Artificial Space Crystal" (VDNKh, Moscow), n.d.

Gelatin silver print on paper mounted on illustration board

Image: 26 x 37.6 cm (10 1/4 x 14 13/16 in.)

Sheet: 26 x 37.6 cm (10 1/4 x 14 13/16 in.)

Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union 1995.0674.003

Francisco Infante-Arana (Russian, b. 1943)

Spiral of Infinity (Yellow variant) from the series *Spiral*, 1963

Tempera on paper mounted on fiberboard
45 x 90 cm (17 11/16 x 35 7/16 in.)

Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union 1995.0816

Francisco Infante-Arana (Russian, b. 1943)

Spiral of Infinity No. 3 (Fiery Coils), 1964

Tempera on paper

Image: 73.8 x 83 cm (29 1/16 x 32 11/16 in.)

Sheet: 73.8 x 83 cm (29 1/16 x 32 11/16 in.)

Collection Zimmerli Art Museum at Rutgers University, Norton and Nancy Dodge Collection of Nonconformist Art from the Soviet Union D05742

Lev Nussberg (Russian, b. Uzbekistan, 1937) and

Natalia Prokuratova (Russian, b. 1948)

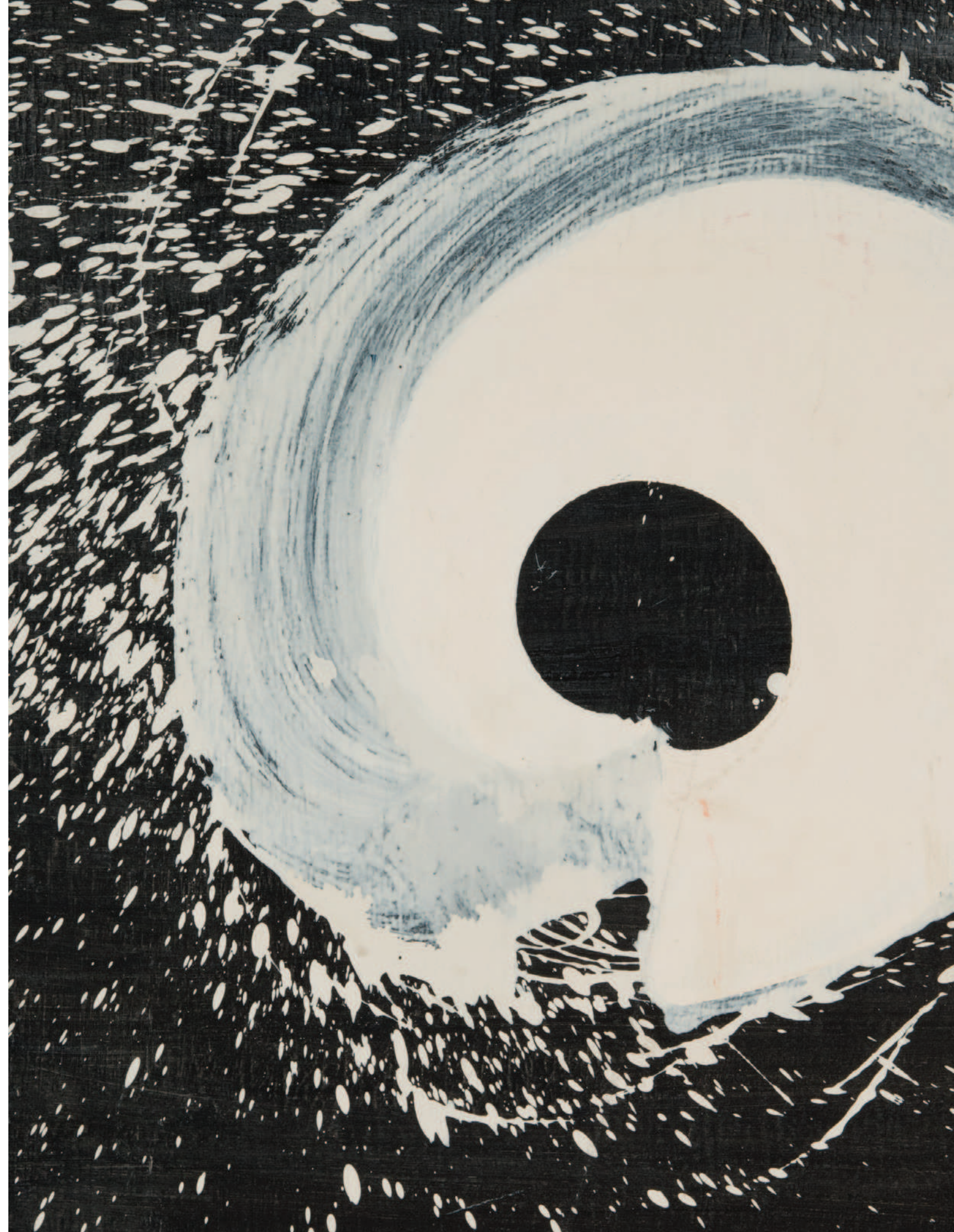
Altar for the Temple of the Spirit (Sketch for the Creation of an Altar at the Institute of Kinetics), 1969–1970

Tempera and photcollage on paper
61.8 x 86.4 cm (24 5/16 x 34 in.)

Collection Zimmerli Art Museum at Rutgers University. Gift of Dieter and Jutta Steiner 2003.0154



Fig. 11
Soyuz Spacecraft Clock
Space Station Museum
2013.001.163





BRUCE MUSEUM