

Robert Rauschenberg Foundation

Hunter College MA in Art History

Blank Space: A Case Study of a Blueprint from the Robert Rauschenberg Foundation Study Collection

ROSE BISHOP



fig. 1

Attributed to Robert Rauschenberg, untitled blueprint, undated
Cyanotype
16 $\frac{3}{16}$ x 14 $\frac{1}{2}$ inches (42 x 36 cm)
Robert Rauschenberg Foundation, Study Collection
RRF# SC192

Blank Space: A Case Study of a Blueprint from the Robert Rauschenberg Foundation Study Collection

The blueprints included in the Robert Rauschenberg Foundation Study Collection are one of the more mysterious bodies of work held in the artist's archives. The group consists of seventeen blueprints and five diazotypes that were likely made during the early stages of Robert Rauschenberg's career, although the exact date is unknown. We also do not know if the artist made these works alone or whether he collaborated with someone, perhaps artist Jasper Johns, through their partnership under the pseudonym Matson Jones. The collection was formerly in the possession of the filmmaker Emile de Antonio, and the circumstances as to how he acquired the prints are unclear. The surviving correspondence on the subject is slim, including two letters in the Rauschenberg Foundation archives and two letters at the Archives of American Art, the contents of which suggest that de Antonio attempted to sell the blueprints on several occasions in the 1970s through art dealer Leo Castelli.¹ After struggling to find a buyer for this group of unsigned works, de Antonio returned the prints to Rauschenberg's studio in July 1981.² Upon Rauschenberg's death in 2008, the blueprints entered the Foundation archives and were placed in the Study Collection. This sparse contextual and circumstantial evidence constitutes the extent of the provenance for these blueprints and at the same time presents several obstacles to researchers looking for definitive answers. This paper does not intend to establish the exact origin or function of the series—a pursuit that art historian Yve-Alain Bois once described as a "hide-and-seek booby trap" specific to Rauschenberg's richly layered work.³ Instead, taking direction from the placement of the blueprints in the Study Collection, the purpose of this research is to assess what can be learned with these challenges in mind, through an overlapping framework of formal, technical, and historical analysis.

This inquiry will focus on an untitled cyanotype work from the Rauschenberg Foundation Study Collection: RRF# SC192 (fig. 1).⁴ At first glance, the print is rather unassuming, giving the appearance of a creased piece of paper that is often evidence of a failed idea or detritus of the creative process. On a metalevel, the blueprints in the Study Collection are discarded or forgotten materials, owing to the difficulty of precisely ascertaining their origins. Therefore, the clarity and definition in visual forms of SC192 provide a good entry point for this group of blueprints, particularly given the indeterminate nature of this body of work. By singling out this print, it is possible to excavate the remains of Rauschenberg's creative process on a microscale and to explore his interest in the material possibilities of blank space.

HOW TO CITE THIS ESSAY

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fig. 2
RRF# SC192 (verso).

Not quite a perfect square, SC192 is printed on a piece of exposed blueprint paper that is slightly taller than the overall width of the composition. The left and right sides of the page are cut along a moderately uneven line, intensifying the overall asymmetry of the work. It is unclear if the piece of blueprint paper—most likely mass-produced and standard sized—was cut before or after the composition was exposed. On the verso, the faded remains of a rectangular strip of tape are evident in the top right corner (fig. 2). This indicates that at some point SC192 was mounted, perhaps to a mat board or another material that was sturdier than paper.⁵ Generally speaking, the sheet shows signs

of aging and was possibly stored in less-than-ideal archival conditions after its production. Patches of brown discoloration are clearly observed on the verso, particularly toward the edges of the sheet. On the recto, these sporadic stains are only noticeable in the lightest areas of the image, such as in the bottom register toward the center left.

SC192 was made through the blueprint or cyanotype process, which are often interchangeable terms in the literature on the subject. The composition was developed on photosensitive paper coated with an iron-based solution that turns from white to blue when exposed to UV light and then soaked in water. Typically, objects are placed directly on the sheet, which when exposed to light, yield a one-to-one scale contact print of the arrangement. The polymath Sir John Herschel invented the blueprint method in 1842 as an inexpensive means of mechanically reproducing text and drawings.⁶ Herschel introduced the method to botanist and photographer Anna Atkins, who used blueprints to illustrate her three-volume botanical study *Photographs of British Algae: Cyanotype Impressions* (1843–53), which is one of the earliest books featuring photographically produced images.⁷ From the 1870s onwards the process came to be primarily associated with the reproduction of architectural and engineering plans.

While blueprinting has long been associated with scientific and technical imaging, its status as a fine art has always been tenuous. Art historian Nancy Burns, curator of a survey on blueprints at the Worcester Museum of Art, Massachusetts, suggests that many of the best known nineteenth- and twentieth-century photographers viewed the method with disdain “because it was too easy,” as it requires little technical training and skill.⁸ Photographer Edward Curtis, for example, only used blueprinting for proofs, while photographer Edward Steichen once referred to his use of the blueprint method as a “secret” in a letter to photographer and modern art

promoter Alfred Stieglitz.⁹ For someone like Rauschenberg, who was engaged with the notion of "de-skilling" for much of his career, this choice of medium is telling of his untraditional and idiosyncratic sensibility.

Adelaide Skeel, a nineteenth-century photographer, was one of the few to publicly advocate for the cyanotype's artistic validity. In an 1888 article for the *American Annual of Photography*, Skeel wrote unabashedly of her love for developing photographic negatives on blueprint paper, despite the practice's poor perception among photographers:

"Does your machine only take blue pictures—real photographers make people in black and white," friends naively said to me when I bought my ten-dollar outfit. I paid no heed, and today blue grass, blue cows, blue trees, and blue faces distinguish my work from that of real photographers . . . although other amateurs confess they use ferro-prussiate paper because, like patent medicine, it is cheap, reliable, and within the reach of all, I make blues because I like them.¹⁰

Skeel's statement, while playful in tone, outlines an important theoretical aspect of blueprinting. Skeel asserts that, in comparison to a black-and-white photograph, the cyanotype's distinct blue tone adds a sense of artificiality that produces a decorative rather than ostensibly empirical effect. She concedes in a subsequent article, "Something More About the Blues" (1891), "the usual objection" to blueprinting is "that such pictures do not look real or natural," which she believed to be the ultimate hindrance to the medium's wider acceptance among photographers.¹¹ Alternatively, blueprints were incredibly popular among amateurs, particularly women. In addition to using commercially available blueprint supplies, many amateur hobbyist photographers made their own paper from recipes published in women's periodicals and craft journals.¹² It is not unreasonable to suggest that Skeel's colleagues may have trivialized her blueprinting practice because of its implied femininity. Skeel, in fact, wrote that some critics would dismiss her blueprints as "crazy-quilt work," a reference that appears to intentionally invoke the gendered dichotomy between fine art and craft.¹³



fig. 3

Sara Adler, *Self Portrait*,
ca. 1885. Cyanotype on paper,
5 × 5 inches (12.7 × 12.7 cm).
Collection of Susan Weil.

With this history in mind, it is significant that Rauschenberg was introduced to the blueprint technique by artist Susan Weil, who would become his wife. From 1949 to 1951 the pair produced dozens of blueprints, of which only some survive today.¹⁴ Weil learned the blueprint technique when she was a child, citing a cyanotype created by her grandmother Sarah Adler as partial inspiration for her and Rauschenberg's later exploration (fig. 3).¹⁵ The cyanotype's traditional classification as a craft perhaps informed the pair's blueprinting more so than its association with scientific imaging. Their proclivity for craft is possibly rooted in their unconventional

education at Black Mountain College, near Asheville, North Carolina, which until 1949 was under the supervision of artists Josef and Anni Albers. In a 1946 profile of the school published in *Junior Bazaar*, the role of craftwork in the curriculum was described as follows:

The average college would turn up its aristocratic nose and murmur disdainfully that the crafts have nothing at all to do with higher education. At Black Mountain things are different. Rightly or wrongly, from the academic point of view, Black Mountain does not distinguish between art history and the actual work of being a craftsman. Moreover, it maintains that pure art and a craft such as weaving are cousins at the very least. Anni Albers, Assistant Professor of Art at Black Mountain, puts it this way: "Any craft may end in producing useful objects, or it may rise to the level of art."¹⁶

In their blueprinting, Rauschenberg and Weil took a similarly nonchalant attitude toward traditional artistic hierarchies. As a young, recently married couple, they embraced the practical nature of blueprinting to be a means of pursuing a fine art career on a tight budget. While the pair apparently did not develop this technique during their time at Black Mountain, their blueprints share striking similarities with *matière* studies, a teaching exercise developed by the Alberses.¹⁷ A *matière* study is an assemblage or collage fashioned from unconventional materials, such as plants, fabric, and wire. The Alberses encouraged the students to make *matière* studies in order to explore the material and tactile possibilities of the compositional space. In a photograph published in the aforementioned *Junior Bazaar* article, a student is pictured arranging squares of fabric, crumpled pieces of wax paper, and leaves on a black background (fig. 4). She does not sit at a desk or conventional classroom table, and instead she works on the floor. The anonymous student and her arrangement bear striking similarities to a 1951 image of Rauschenberg blueprinting (fig. 5). Included in a *Life* magazine spread on Rauschenberg and

fig. 4

Student making a *matière* study at Black Mountain College. Photo: Genevieve Naylor. Published in *Junior Bazaar*, May 1946, p. 132.



fig. 5

Focusing, taken ca. January 1951. Photo: Wallace Kirkland. Published in *Life*, April 9, 1951, p. 24.



fig. 6

Robert Rauschenberg holding a blueprint that he and Susan Weil made in their West Ninety-Fifth Street apartment, New York, ca. January 1951. Photo: Wallace Kirkland. Wallace Kirkland Papers, [0062_OL11C_0004], Special Collections and University Archives, University of Illinois at Chicago.



Weil's blueprinting practice, the photograph depicts Rauschenberg exposing a blueprint on the floor of the couple's New York apartment.¹⁸ Like the unnamed student's *matière*, Rauschenberg and Weil's arrangement creates formal relationships between disparate materials. For example, the amorphous netting toward the top of the composition contrasts with the rigidity of the metal chain that runs along the bottom quarter of the page. Despite these structural differences, both objects are perforated, allowing light to pass through in a

manner well suited for the blueprinting process. In the final exposure, which was reproduced in the magazine above the photograph of Rauschenberg, these objects are bound together in a field of blue and give off the appearance of weightlessness. The prints in the Study Collection contain similar formal comparisons. For instance, in another untitled cyanotype from the group (referred to as RRF# SC195), what look to be gears and light-switch covers are placed against a background flecked with dirt and other natural detritus. Similar comparisons between natural and technological forms appear throughout this body of work. In this light, the blueprints in the Study Collection can perhaps be viewed as a series of variations on the *matière* studies taught by the Alberses.

As is the case with *matière* studies, it is difficult to evaluate the status of Rauschenberg and Weil's blueprints as independent works of art. While at least one work, *Female Figure* (ca. 1950), was exhibited in Steichen's show *Abstraction in Photography* at the Museum of Modern Art, New York (May 2–July 4, 1951), others were made for publicity or commercial purposes.¹⁹ Rauschenberg also made several commercial blueprints in his later collaboration with Johns under the pseudonym Matson Jones. We do not know definitively if Rauschenberg produced the blueprints in the Study Collection with or without a collaborator.

Interestingly, the motif of crumpled paper appears in the blueprints Rauschenberg made with both Weil and Johns. The earliest known example is clearly visible in another photograph taken by Wallace Kirkland for *Life* magazine in January 1951 (fig. 6).²⁰ The image captures Rauschenberg in the couple's apartment, as he is surrounded by blueprints, as well as works created independently by Weil. A blueprint produced with the same crumpled paper technique as SC192 is located directly behind Rauschenberg. In his *Artforum* article "Lost and Found," art historian Michael Lobel proposes that Rauschenberg and Weil strategically staged the setting



fig. 7

Matson Jones, four cyanotypes for department-store window displays, ca. 1955. Four parts, approximately 14 feet \times 3 feet 5 inches (364 \times 106.5 cm) each.

of the Kirkland photographs in order to give prominence to certain works.²¹ The couple probably included the crumpled paper blueprint in an effort to demonstrate the diversity of their practice because the majority of their blueprints feature figures or botanical forms.

The one extant Matson Jones blueprint piece, sometimes referred to as "Jasper Johns Blue Ceiling" (ca. 1955) due to an inscription on the verso, prominently features sections of paper that appear creased or wrinkled in a similar manner to SC192 (fig. 7).²² It consists of four separate panels, each picturing an aquatic scene decorated with a large figure and a variety of sea creatures. The crumpled paper technique is used to simulate the effect of rippling water. Notably, this effect is used to obscure the bodies of the figures, adding the appearance of dimensionality to the relatively flat silhouettes (fig. 8). The cyanotypes were reportedly made for a display in the windows of a New York department store.²³ However, it is unknown when the work was installed or what products were paired with the prints.



fig. 8

Matson Jones, cyanotype for department-store window display, ca. 1955 (detail, one panel).



fig. 9

Attributed to Robert Rauschenberg, untitled blueprint, undated. Cyanotype, 10 $\frac{3}{4}$ \times 9 $\frac{3}{8}$ inches (27.2 \times 24.5 cm). Robert Rauschenberg Foundation, Study Collection, RRF# SC183.



fig. 10

Advertisement for Mary Chess Perfume, featuring "Star Bottle," in bottom right corner, ca. 1947.

In addition to SC192, one other blueprint in the Study Collection features the crumpled paper motif (fig. 9). Referred to as RRF# SC183, the work also pictures the imprint of a perfume bottle. The bottle appears to be a near perfect match to the star bottle that was made by perfumer Mary Chess and produced between 1942 and 1956 (fig. 10).²⁴ The perfume was primarily sold at luxury department stores and retailed between \$5 and \$7.50. It is unclear where the bottle came from, but given Rauschenberg's window display work, it is possible he acquired it through his work at Bonwit Teller. There is evidence to suggest that Bonwit Teller did feature Mary Chess-themed display windows, such as a display installed from June 27 to July 11, 1950, and documented in the Dan Arje papers at The New School.²⁵ However, no extant photographs of Bonwit Teller windows feature SC183, so it is unknown if the print was ever featured in a display.

While it is unknown if the blueprints in the Study Collection were created with a collaborator, circumstantial evidence suggests that this body of work was indeed commercial, similar to the work produced under the Matson Jones pseudonym. In addition to his work as a filmmaker, de Antonio reportedly helped broker commercial jobs between fine artists and corporate clients. In his book *Off the Wall: Robert Rauschenberg and the Art World of Our Time* (1981), Calvin Tomkins refers to de Antonio as Rauschenberg's "agent" and "business intermediary," although the specifics of this position are unknown.²⁶ In all likelihood de Antonio facilitated some of Rauschenberg's display work for department stores, such as Bonwit Teller, and probably then held on to the prints now in the Study Collection. De Antonio attempted to sell these blueprints as works of art through Castelli in the mid 1970s. In a 1976 letter addressed to Rauschenberg, de Antonio writes, "A dealer put it to me clearly as it can be stated: if you sign them, they're art and worth money."²⁷

Rauschenberg never signed the works in the Study Collection; in fact, no surviving blueprints from this era have a signature (the one exception being the blueprint panels signed with letters spelling Matson Jones, but not by hand). While the lack of signature is not necessarily indicative of Rauschenberg's consideration of this material as "art" worthy of the commercial market, de Antonio certainly believed a signature would make the Study Collection blueprints more credible as artworks. In December 2020, the Matson Jones quadriptych sold at auction for \$750,000, in some sense validating de Antonio's suspicion that Rauschenberg's commercial blueprinting would someday be considered highly valuable.²⁸

Regardless of Rauschenberg's personal designation of SC192, it is an aesthetic object deserving of art historical and technical examination. Unlike conventional cyanotypes, which are typically contact prints, SC192 seems to have been exposed in an entirely different manner. Significant insight into how the effects were achieved in SC192 came from a workshop at Hunter College led by Hunter's Adjunct Assistant Professor of Art and Technology Coordinator Christina Freeman during the fall of 2019. Initially, our student cohort had assumed that Rauschenberg's composition could be replicated by laying wrinkled cellophane or tissue over light-sensitive paper. However, this theory ultimately failed in action and produced effects that were barely perceptible in the print. At Freeman's suggestion, a sheet of blueprint paper was crumpled into a loose ball and exposed as a unit, which became a eureka moment in our research. Once placed in the water bath, the paper ball's physical wrinkles smoothed out. Yet due to the uneven exposure to light, the sheet retained an imprint of its former crumpled state, rendered in blue and white tones.

The crumpled paper experiment from the workshop resulted in a close match with SC192 (fig. 11). In comparison to the prints created under Freeman's guidance, however, SC192 achieves a much subtler range of tones. After consulting with photography conservators, it was concluded that a multitude of factors could have contributed to this result.²⁹ For example, it is likely that these earlier blueprints were exposed to a much stronger UV bulb than those commercially available today. It is also possible that the sheet was coated with a slightly more sen-

sitive chemical solution, which could explain the wider tonal range within the blueprints in the Study Collection. In addition, there is evidence to suggest that SC192 was created with an elaborate folding technique, allowing for a more detailed impression (fig. 12). The sheet of paper appears to have been folded into roughly twelve even sections, and the creases are most clearly visible on the backside of the sheet. However, the final

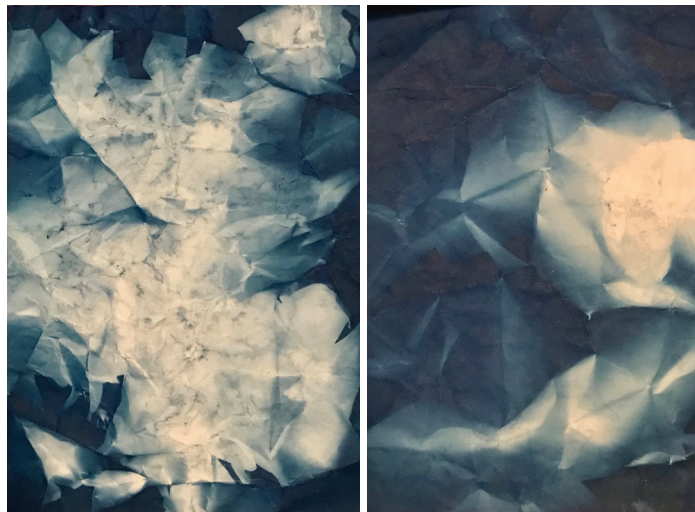


fig. 11

Selection of prints made at the blueprint workshop led by Christina Freeman, October 16, 2019.

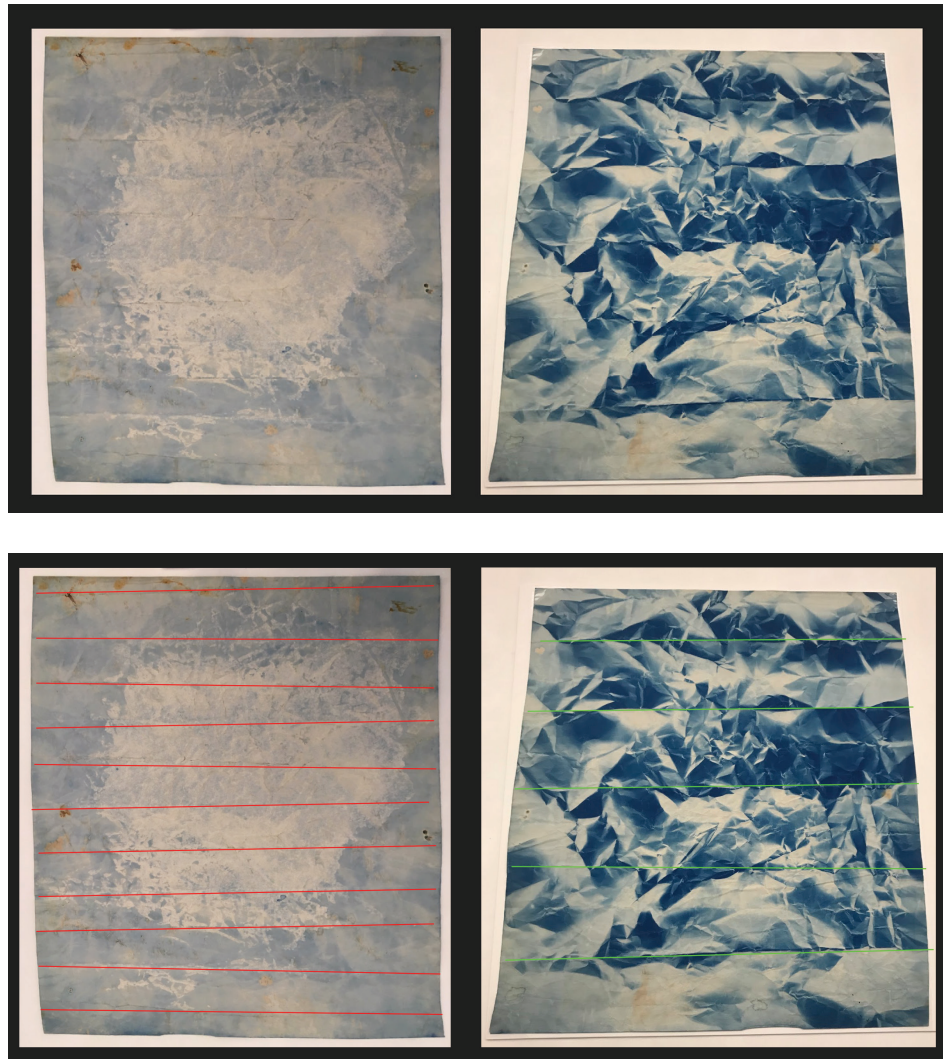


fig. 12

Details of folds on RRF# SC192. Annotated by the author.

exposure seems to be divided into six parts, not twelve. It seems that the paper may have been folded accordion-style into twelve parts, and then systematically unfolded, creased, and exposed two sections at a time. This segmented technique would have allowed greater control over the crinkling of the paper and overall contrast of the image. Additionally, it provides more evidence that similar works were not simply "one-shot" images but in fact highly coordinated and skilled efforts.

If this was indeed the exposure method used to create SC192, the process has several symbolic implications. The final composition presents a dialectic view of the paper's materiality; although physically flat, the wrinkles of its former state are clearly imprinted on its surface. The page remains blank, showing no signs of language or artistic gesture. Nonetheless, the hand of the maker is clearly present in this suspended moment of change from smooth to

fig. 13

Robert Rauschenberg, *White Painting* [three panel], ca. 1951. House paint on canvas, 72 × 108 inches (182.9 × 274.3 cm). San Francisco Museum of Modern Art; Purchase through a gift of Phyllis Wattis.



creased. The act of crumpling the sheet of paper is the very mechanism that produces the final photographic image. Thus, the distinction between process and aesthetic content is effectively collapsed.

When examining SC192 and the crumpled paper technique, one is reminded of composer John Cage's assessment of Rauschenberg's infamous *White Paintings* (1951), which are similarly "blank" and function as receptors for light and shadow in the gallery space (fig. 13):

To Whom / No subject / No image / No taste / No object / No beauty / No message /
No talent / No technique (no why) / No idea / No intention / No art / No object / No
feeling / No black / No white (no and) / After careful consideration, I have come to the
conclusion that there is nothing in these paintings that could not be changed, that they
can be seen in any light and are not destroyed by the action of shadows. / Hallelujah!
the blind can see again; the water's fine.³⁰

Cage suggests something of the boundless, if not cosmic, possibilities of blank space. A 2018 study conducted by researchers at Harvard University confirmed that a crumpled ball of paper could take on an infinite number of configurations.³¹ The simplicity of this process allowed Rauschenberg to apply this aesthetic across a range of different projects, making it a highly practical artistic tool. Each application of the crumpling technique produces a distinct one-of-a-kind image, positioning the photosensitive paper as a tabula rasa of sorts.

fig. 14

Robert Rauschenberg,
 Untitled [paper painting],
 ca. 1953. Tissue paper in
 glass display case with wood
 base, 18 × 14 × 4 inches (45.7
 × 35.6 × 10.2 cm); height
 approximate. No longer
 extant or lost.



Antithetical to these more high-minded ideas, a balled-up piece of paper quite literally signifies waste, which brings to mind Rauschenberg's later engagement in 1953 with "elemental" materials, such as clay, dirt, and gold leaf. One object from this loosely conceived series (now lost but documented in a photograph) consists of an upright glass box filled with discarded pieces of tissue paper (fig. 14). In some respects, this lost work may represent a three-dimensional realization of the crumpling technique utilized in SC192, in that the wrinkled texture of the tissue paper is ultimately rendered flat

by the sheet glass. The sculptural object's physicality ultimately emphasizes the material qualities of trash, whereas the crumpled blueprints project a more ambiguous presence. They seem to be made up of both base and cosmic matter, existing in a space between Rauschenberg's *White Paintings* and his so-called elemental paintings (ca. 1953).

The crumpled blueprints, and in particular SC192, embody the boundless potential of waste as an artistic medium—a theme that Rauschenberg engaged throughout his career. It is this duality that makes SC192 a compelling object in the context of the artist's large oeuvre. Perhaps it is fitting that our knowledge of SC192—and the blueprints in the Study Collection as a whole—has significant gaps, as it signals that there is ample blank space for original research on this enigmatic body of work.

Special thanks to the staff at the Robert Rauschenberg Foundation, Michael Lobel, and Christina Freeman.

ENDNOTES

- 1 Letter from Emile de Antonio to Leo Castelli, December 26, 1974, Leo Castelli Gallery Records, Archives of American Art, Washington, D.C.; letter from Emile de Antonio to Leo Castelli, October 3, 1975, Leo Castelli Gallery Records, Archives of American Art, Washington, D.C.; letter from Emile de Antonio to Robert Rauschenberg, October 12, 1976, Box CO-27, Robert Rauschenberg Papers, Robert Rauschenberg Foundation, New York; letter from Emile de Antonio to Robert Rauschenberg on July 2, 1981, Box CO-27, Robert Rauschenberg Papers, Robert Rauschenberg Foundation, New York.

- 2 Letter from de Antonio to Rauschenberg on July 2, 1981.
- 3 Yve-Alain Bois, "Eye to the Ground," *Artforum* 44, no. 7 (March 2006), p. 245.
- 4 Since the blueprints in the Study Collection are not titled, they will be referred to by their SC registration number throughout this paper. The registry numbers (such as RRF# SC192) were assigned by the Robert Rauschenberg Foundation.
- 5 This is the hypothesis proposed by conservators at the blueprint study day held at the Robert Rauschenberg Foundation, New York, November 21, 2019. Conservators at the study day were Lee Ann Daffner (Andrew W. Mellon Foundation Conservator of Photographs, The Museum of Modern Art, New York), Nora Kennedy (Sherman Fairchild Conservator in Charge, Photograph Conservation Department, The Metropolitan Museum of Art, New York; cofounder of The Better Image), and Peter Mustardo (conservator of photography; cofounder of The Better Image).
- 6 For more information on the production, history, and conservation of blueprints, see Dusan C. Stulik and Art Kaplan, "The Atlas of Analytical Signatures of Photographic Processes: Cyanotype," *The Getty Conservation Institute*, 2013, pp. 1–19.
- 7 Ibid.
- 8 As quoted in Ted Loos, "Cyanotype, Photography's Blue Period, Is Making a Comeback," *The New York Times*, February 5, 2016.
- 9 Nancy Kathryn Burns and Kristina Wilson, *Cyanotypes: Photography's Blue Period*, exh. cat. (Worcester, Mass.: Worcester Museum of Art, 2016), p. 64.
- 10 Adelaide Skeel, "Blues," *The American Annual of Photography and Photographic Times Almanac* (New York: Scovill Manufacturing Co., 1889), p. 48.
- 11 Adelaide Skeel, "Something More About the Blues," *The Photographic Times* 21, no. 489 (January 30, 1891), pp. 54–55.
- 12 Burns and Wilson, *Cyanotypes*, p. 18.
- 13 Skeel, "Something More About the Blues," p. 55.
- 14 Michael Lobel, "Lost and Found: Susan Weil and Robert Rauschenberg's Blueprints," *Artforum* 54, no. 6 (February 2016), p. 188.
- 15 The Reminiscences of Susan Weil, January 27, June 6, and September 10, 2014. *Robert Rauschenberg Oral History Project*. Conducted in collaboration with INCITE/Columbia Center for Oral History Research, Robert Rauschenberg Foundation Archives, p. 89.
- 16 "Black Mountain College," *Junior Bazaar*, May 1946, p. 132.
- 17 This relationship was first proposed by Vanessa S. Troiano, "The 'Bauhaus Idea' in Robert Rauschenberg's Blueprints," *International Journal of Architectural Theory* 24, no. 39 (2019), pp. 99–113.
- 18 "Speaking of Pictures: Blueprint Paper, Sun Lamp, a Nude Produce Some Vaporous Fantasies," *Life* 30, no. 15 (April 9, 1951), pp. 22–24.
- 19 Lobel, "Lost and Found," p. 188.
- 20 Lobel found the original negative of this photograph in Wallace Kirkland Papers, (0062_OL11C_0004), Special Collections and University Archives, University of Illinois at Chicago.
- 21 Lobel, "Lost and Found," p. 195.
- 22 At the time of viewing (October 30, 2019), these cyanotypes were in the collection of Philip Williams.
- 23 While the Jasper Johns catalogue raisonné cites these works as being made for Bergdorf Goodman, my colleague Ximena Santiago asserts that there is a possibility the four cyanotypes were, in fact, commissioned by Bonwit Teller. See Ximena Santiago, "Factory of Two: Matson Jones Blueprints for Window Displays," Robert Rauschenberg Foundation, accessed fall 2021.

- 24 This date range is extrapolated from a preliminary search on ProQuest database of periodicals and newspapers. The earliest printed reference to the star bottle can be found in *The Washington Post*, October 22, 1942, p. B6. The latest reference can be found in *Women's Wear Daily* 93, no. 83 (October 26, 1956), p. 28.
- 25 Arje was a designer and display director for Bonwit Teller. The display, designed by Gene Moore, features actor Cris Alexander in drag, surrounded by Mary Chess bottles and white lilacs. "Bonwit Teller Display Featuring the Perfume 'White Lilac' by Mary Chess," photographic print, binder 1, KA0001_000008, Dan Arje Papers, The New School Archives and Special Collections, New York.
- 26 Calvin Tomkins, *Off the Wall: Robert Rauschenberg and the Art World of Our Time* (New York: Penguin Books, 1981), p. 147
- 27 Letter from de Antonio to Rauschenberg, October 12, 1976.
- 28 "Matson Jones (Robert Rauschenberg [1925–2008] and Jasper Johns [b. 1930])," *Christie's*, December 1, 2020, accessed May 15, 2020.
- 29 Hypothesis proposed by participants at the blueprint study day held at the Robert Rauschenberg Foundation, November 21, 2019.
- 30 As cited by Sarah Roberts, "White Painting [three panel]," Rauschenberg Research Project, San Francisco Museum of Modern Art, July 2013, accessed April 20, 2019.
- 31 Omer Gottesman et al., "A State Variable for Crumpled Thin Sheets," *Communications Physics* 1, no. 70 (November 8, 2018).