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Photographic Sculptures, Photographic Films:

David Smith and Douglass Crockwell's Stop-Motion Experiment

A thesis submitted in partial satisfaction

of the requirements for the degree Master of Arts

in Art History

by

Paul Michael Smith

2022

ABSTRACT OF THE THESIS

Photographic Sculptures, Photographic Films:

David Smith and Douglass Crockwell's Stop-Motion Experiment

by

Paul Michael Smith

Masters of Arts in Art History

University of California, Los Angeles, 2022

Professor George Thomas Baker, Chair

This thesis examines a fourteen-second stop-motion animation David Smith and Douglass Crockwell produced between 1936 and 1937. Through an analysis of the collaboration and the models that guided its production, this paper argues that Smith utilized, in the mid-1930s and throughout his later career, a sense of the photographic medium derived from his encounters with surrealist sculpture. A conception of photography as a set of operations exceeding the inscription of light onto celluloid film, epitomized in a 1936 issue of *Cahiers d'art* and at the "Surrealist Exhibition of Objects," is therefore at work in the development of modernist sculpture. This paper suggests that the collaborative film provides a lens onto these influences in Smith's work, revealing an expanded sense of photographic and sculptural production therein.

The thesis of Paul Michael Smith is approved.

Lamia Balafrej

Zirwat Chowdhury

George Thomas Baker, Committee Chair

University of California, Los Angeles

2022

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Introduction

Sometime around 1935, the young sculptor David Smith was introduced to Douglass Crockwell, his neighbor in Glens Falls, New York. This introduction, facilitated by painter John Graham, gave Smith a committed patron and gave Crockwell—who besides his commercial illustrations was a noted experimental filmmaker—a collaborator between 1936 and 1937.[1] Their encounter begat a fourteen-second stop-motion animation, a black-and-white fragment now purpled and browned by age, in which four small sculptures made by Smith rotate on a desolate stage. Historians of both the sculptor and filmmaker-illustrator did not register the clip for sixty years. The first documented exhibition of Smith and Crockwell's collaboration came in 2001 when Bruce Posner, compiling Crockwell's shorts from the holdings of Anthology Film Archives (AFA) for the film series *Unseen Cinema*, spliced the fragment into a compilation reel titled *Simple Destiny*.

Posner chose the collaboration to open *Simple Destiny*, one of two monochrome shorts that precede the film's title sequence. In the 1936 or 1937 collaboration, a low camera holds four small sculptures on a barren white plane high above a dark purple horizon, in a twilight induced by a negative print. Two richly textured objects, fragments of coral Smith acquired in 1932, sit on the right side of the landscape. The two other objects, one modeled from clay and one apparently stone, rotate and jerk around their bases, and the scene is submitted to sudden cuts and flashes of light while painted lines wend across the landscape and climb up the sculptures.

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[1] Cecile Starr chronicled this introduction in "Busby Berkeley and America's Pioneer Abstract Filmmakers," in Bruce Posner, ed., *Unseen Cinema: Early American Avant-Garde Film 1893-1941* (New York: Black Thistle Press/ Anthology Film Archives, 2001), 81. No more precise date than Starr's "1936 or 1937" can be found for what she, in the clip's only discursive registration, calls this "surrealistic film [sequence]." The editors of the new *catalogue raisonné* for Smith's work only note, on page 140, the collaboration's "mid-1930s" production.

After a frozen moment in which one of the lines is the only thing moving, the sculpture at the

composition's center, the largest and most dominant thing, careens rapidly in sync with an

uneven shadow below it. As it picks up speed, and threatens to fly off its base, the segment ends.

The clip stands apart from the other projects of both its creators. No publicly available

works by Crockwell, including the other *Simple Destiny* shorts, examine form with such

economy.[2] And the collaboration is Smith's sole foray into film, a medium that, at first glance,

seems remote from his projects in sculpture. Posner's aim in compiling *Unseen Cinema* was to

foreground American experimental film prior to 1941. Experimental film, at the moment of the

Smith and Crockwell collaboration, was bereft of stable definitions and unified discursive

cinematic contexts. MoMA was the only weighty institution screening experimental film in New

York after the Great Depression, and its film program, founded in 1935, exhibited almost

exclusively European imports. By then the organizations that in the 1920s sustained national

frameworks for the distribution of experimental cinema, such as the Amateur Cinema League

and smaller cine-clubs and magazines like Lewis Jacobs' *Experimental Cinema*, had all folded or

shied from their early goals.[3] So the art gallery circuit was the primary context for East Coast

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[2] There are only scant mid-1930s Crockwell clips for comparison. In "Peep Show: The Past and Future Mutoscope," a draft text for a film-historical essay released in conjunction with the 1967 exhibition "Mutoscopes" at MoMA, Crockwell noted that he produced abstract, 16mm films since 1935. See Crockwell, typescript of "Peep Show," Box C364, Folder 10, Douglass Crockwell Collection, 1897–1976, Moving Image Department, George Eastman Museum, Rochester, New York, 2. Most of Crockwell's extant films, and all sequences included in *Glens Falls Sequence* (1946) and *The Long Bodies* (1947), his best-known films, follow his 1938 invention of a multilayered paint-on-glass technique, detailed in "A Background to Free Animation," first published in *Film Culture* 32 (Spring 1964), 30.

[3] See Jan-Christopher Horak's "Introduction: History in the Gaps," essay "The First American Film Avant-Garde, 1919-1945," and Patricia R. Zimmermann's essay "Startling Angles: Amateur Film and the Early Avant-Garde," in *Lovers of Cinema: The First American Film Avant-Garde, 1919-1945* (Madison, WI: The University of Wisconsin Press, 1995), 3–13, 14–66, and 137–155, respectively.

avant-garde work in film between roughly 1932 and 1942.[4] Smith and Crockwell did not enter

their film into this network. But they nevertheless undertook their work in relation to it. As

participants in that circuit, they would have been influenced by a heterogeneous sense of what

film might consist of at its material and experiential bases. Pavle Levi argues that this

heterogeneity was the result both of attempts to erode sedimented definitions of cinema, and as a

facet of artists' "radicalized—even perverse—*fidelity* to the notion of medium-specificity."[5]

Accordingly, Smith and Crockwell's "discarded experiment"—long kept unseen in AFA's

archives and barely mentioned in film- and art-historical literature—gestures to an "experimental

film" understood not as a counter-practice to ossified conventions, but as an examination of how

different mediums might interact.[6]

Whereas a near-total dearth of information on Crockwell's pre-1938 films forbids any

concrete analysis of his influences, the surfeit of photographic operations littering the

collaborative film, from indexical production to stop-motion animation, indicate heretofore

unexamined ways in which Smith absorbed European avant-garde practices. By reading Smith's

work through his 1936 or 1937 collaboration and the models that undoubtedly guided its

production, this essay argues that surrealism circa 1936 redefined Smith's understanding of the

photographic medium. While Rosalind Krauss has thoroughly traced surrealist sculpture's formal

and iconological tropes through Smith's work, no text has yet surveyed surrealism's

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[4] Crockwell's collaboration with Smith, and their introduction via John Graham to each other and to the practices which would sustain their artistic careers, testifies to an artistic context for the production of (some) experimental film in the 1930s. Furthermore, gallerists Julien Levy and Alfred Stieglitz hosted experimental film programs, American and European, through the 1930s.

[5] Pavle Levi, "Cinema by Other Means," *October* 131 (Winter, 2010), 54-55.

[6] Bruce Posner used the term "discarded experiment" to describe the collaboration in private correspondence with the author, January 3, 2022.

photographic implications therein.[7] My claims build on, and depart from, Sarah Hamill's

assertion in *David Smith in Two Dimensions: Photography and the Matter of Sculpture* that

Smith approached photography as a mediator of sculptural space.[8] The magazines, exhibitions,

and films Smith engaged leading up to his collaboration demonstrate that sculptures can act like

photographs—that photography can exist beyond the bounds of the camera apparatus. Smith

reiterated precisely these insights while collaborating with Crockwell. The rhetoric of medium-

specificity with which Smith has often been associated must therefore be revised. Hamill

demonstrates that Smith's movements across media "forge a boldly expansive definition of the

sculptural object."[9] The collaborative film and the material dramas therein suggest that in

Smith's reckoning after 1936, spectatorial operations, rather than material substances, defined

"sculpture." Smith abandoned the collaboration and film in general, but not before absorbing a

capacious sense of the photographic medium.

14 Seconds, 224 Frames

In Smith and Crockwell's brief clip, a low-angled camera looks across a shallow white

landscape at four tightly-framed, hulking objects. These white-front-lit behemoths stand high

before a dark purple plane, their grooves deep in shadow (fig. 1). Two distended, bulging objects

occupy the landscape's left side and center. Strange flat spots, like amputated limbs, accentuate

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[7] See Rosalind Krauss, *Terminal Iron Works: The Sculpture of David Smith*. Sarah Hamill has explored surrealist photography in conjunction with Smith's techniques of staging sculpture and his late-career photographs of nude women, but not the expanded sense of the photographic medium that I examine below.

[8] "For Smith," Hamill writes, "the photograph was a mediating surface. It was a technological and representational framework to distance the beholder by destabilizing three-dimensional illusionism." Sarah Hamill, *David Smith in Two Dimensions: Photography and the Matter of Sculpture* (Oakland, CA: University of California Press, 2015), 75.

[9] Hamill, *David Smith in Two Dimensions*, 22.

the sinuous twist of the leftmost object. The top third of the bulbous, centered figure's bulk hangs limply off its spine like an inverted L. This tall, swollen object dwarfs two textured, ridged and organic-looking forms, a rectangle and a vertical ellipse, that stand on the scene's right side. The leftmost object rotates as the film begins and seems to continually stop and start. Its clockwise rotation corresponds with a dark line that emanates from the cleft between the things at right. The line traces a low path over the left side of the landscape by 0:04. The object at left continues rotating calmly.

On completing its circuit at 0:04, the line immediately begins to disappear, from right to left. The curved object still shifts. As it nears one full turn, it reverses direction; at the same instant, the central object swings clockwise on its axis. A swath of white—not shade—accompanies this latter object underfoot. White spreads across the landscape and seemingly impels a dramatic intensification of the scene's lighting, whereby all objects lose their shadows and their volume is obliterated over two seconds (fig. 2). When both moving objects reach 180° from their original positions, a violent jump cut rearranges and holds them static for one second —sixteen frames which feel much longer. This cut reintroduces the opening shot's chiaroscuro and reveals a new line, now extending from the central object's base toward the viewer, bending sharply left on the landscape's foreground and following the original line's course across the back left horizon. A web of white lines rapidly trace out a network on the now-dark central object's front from 0:10 to 0:11 (fig. 3). The central figure then rotates again, now rapidly, and a bright light blows out the whole scene. The objects look like photograms.[10] The central figure

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[10] Photograms are pictures made by placing objects on photo-sensitive papers in the dark, and then turning on the lights. The objects are inscribed as negative silhouettes on the paper, such that those parts of the objects closest to or touching the paper are rendered depthless white.

completes three turns from 0:11-0:14: after quick clockwise shift from its position at 0:10 to its

starting orientation, it briefly holds still before spinning rapidly around three times (fig. 4). Its

flaccid top leaves perceptible trails of its past positions in its wake. Shadows return to grant the

scene a depth of field, but these shadows incongruously emanate from all four objects out

towards the scene's light source, which beams down from a spot just above the viewer's head.

One of these shadows, a scumble of shade, mimics the central figure's quick spin (fig. 5). And

then it's all over, in only fourteen seconds.

<u>Picturing Coral</u>

The four sculptural objects and their material character constitute Smith's clearest

contribution to the film, and situate the collaboration in dialogue with surrealist practices of the

mid-1930s. Smith visited St. Thomas, U.S. Virgin Islands, with his wife Dorothy Dehner in

1931, four years before he met Crockwell.[11] Smith's transition from painting to sculpture began

in the Caribbean, where he photographed a series of untitled stone, driftwood, shell, coral, and

wire constructions, materials Smith used in the bulk of his sculptures until mid-1933. According

to Hamill, these experiments prefigured decades of Smith's work, and photography's modulation

of scale, and its ability to "destabilize things, reinventing them by manipulating the camera's

focus, vantage point, and frame," fundamentally motivated Smith's three-dimensional projects.[12]

Two of the St. Thomas prints include corals corresponding to those deployed in the later

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[11] Hamill details this trip in *David Smith in Two Dimensions*, 13–19.

[12] Hamill, *David Smith in Two Dimensions*, 19.

collaboration with Crockwell; Smith's return to these materials after a three-year hiatus, a return

he never repeated, indicates that they acquired a new prescience in the mid-1930s.[13]

The corals and stones Smith collected in St. Thomas laid dormant for three years. The

earliest possible starting date for Smith's collaboration with Crockwell is midsummer 1936.[14]

While working with Crockwell sometime between his July 1936 return to America from abroad

and the end of 1937, Smith recovered—or re-found—his corals and rocks. In his later years,

Smith credited a 1932 encounter with an old issue of *Cahiers d'art* for spurring his primary

sculptural ambitions.[15] His remarks did not mention the St. Thomas photographs. Nor did he ever

reference, when describing his career during the 1930s, the cinematic collaboration with

Crockwell or the special 1936 issue of *Cahiers d'art* which was found posthumously in his

library.[16] Notably, that January issue, the first *Cahiers d'art* release of 1936, includes many

photographs of stones and corals. Smith only revived his half-decade-old tableaux materials after

encountering these images. Edited in part by André Breton, the January *Cahiers d'art* was

dedicated to the "surrealist object" and juxtaposed works by Hans Bellmer, Salvador Dalí,

Marcel Duchamp, Alberto Giacometti, Man Ray, Henri Matisse, Joan Miró, and Francis Picabia

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[13] Given that Smith's photographs from St. Thomas are all gelatin silver prints labeled *Untitled (Virgin Island Tableau)* or *Untitled (Virgin Islands Photomontage)*, directing the reader to particular photographs proves challenging. Plates 8 and 14 from *David Smith: Photographs 1931-1965*, Rosalind Krauss, ed. (New York and San Francisco: Matthew Marks Gallery and Fraenkel Gallery, 1998), have objects bearing striking similarity to those used in the film, as does the *Untitled (Virgin Islands Photomontage)* reproduced on page 16 of Hamill's *David Smith in Two Dimensions*.

[14] Smith was visiting Europe from October 9, 1935 to July 4, 1936. See *David Smith Sculpture: A Catalogue Raisonné, 1932–1965*, Christopher Lyon and Susan J. Cooke, eds., vol. 1 (New York, NY: The Estate of David Smith and New Haven and London: Yale University Press, 2022), 140–42. Starr's earliest year (see fn.1) is 1936.

[15] See, for example, Smith's notations in *David Smith by David Smith*, Cleve Gray, ed., (New York, NY: Holt, Rinehart & Winston, 1968), 25.

[16] A summary of *Cahiers d'art* issues in Smith's library can be found in Rosalind Krauss, *Terminal Iron Works: The Sculpture of David Smith* (Cambridge, MA and London: The MIT Press, 1971), 36, fn.20.

(among many others) with a spread on fourteenth-century Catalan painter Lluís Borrossà, architectural details from Occitanian abbeys, figurines and masks from Polynesia and the American Pacific Northwest, and crystals, fossils, and unusual stones. The latter objects recur throughout the issue, illustrating Breton's essay "Crisis of the Object" and appearing beside surrealist sculptural constructions in other spreads. Of these, both a calcite formation around quartz sand on page 28 as well as a distended found stone object on page 52, bear remarkable textural and formal similarity to the coral in Smith's early photographs. "Crisis of the Object" is intercut with photographs of stibnite and baryte crystals, pyritized ammonites, and other geological oddities, suggesting that Breton's thesis, which claimed everyday objects were suffering an acute "crisis" that might likewise be provoked in their handlers to achieve a "total disruption of [their] sensibility," could be demonstrated with rocklike forms.[17] Such objects could, Breton averred, "[reveal] the *marvelous* in everyday life."[18] Breton's selection of mineral objects for the *Cahiers d'art* essay engaged his ongoing claims in surrealist journals, later partially compiled in the 1937 book *Mad Love*, that the "marvelous" could be sensed in crystals and corals, uncanny photographs of stilled action, and found objects—via the three categories of "convulsive beauty," respectively the "veiled-erotic, fixed-explosive, magical-circumstantial."[19] All three categories evince a strange, and ultimately uncanny, temporal juncture whereby

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[17] André Breton, "Crisis of the Object," originally published in *Cahiers d'art* 11, no. 1 (May 1936), 21-26. Cited here from *Surrealism and Painting*, trans. Simon Watson Taylor (Boston: Museum of Fine Arts, 2002), 275. On page 279 and 280, Breton claims his goal is to make objects splinter into "an infinite series of *latent possibilities*," such that the viewer "*will discover more in the reality concealed within the entity than in the immediate data surrounding it.*" In other words, Breton hoped his conjunctions between objects would multiply the identity of each individual thing, shattering their singularity and thus, by extension, the viewer's sense of self.

[18] Ibid.

[19] André Breton, *L'Amour fou (Mad Love)*, trans. Mary Ann Caws (Lincoln and London: University of Nebraska Press, 1987), 19.

movement, whether geological, physical, or psychic, is brought to a standstill. Breton peppered *Mad Love*, as he had "Crisis of the Object," with photographs, illustrating the "veiled-erotic" by means of natural objects resembling statuettes and pictures of a coral reef and crystals; the "fixed-explosive" via Man Ray's photograph of a whirling dancer (*Fixed Explosive*, 1934) and an un-reproduced image from *Minotaure* 10 of an abandoned locomotive; the "magical-circumstantial" through a host of found, and modified, little objects—things that are, in Hal Foster's words, "lost object[s] regained."[20] In "magical-circumstantial" events, the finder recognizes an object as "a precipitate of [her] desire," and in so doing projects the sign of repetition to ward off the trauma of a prior loss.[21]

Smith's redeployment of objects central to his earliest experiments in sculpture, which were undertaken in part through the medium of photography, implies that coral and stone took on a revived importance for the sculptor in the wake of his early-1936 engagement with surrealism. Breton set corals and stones among other objects that suggest human forms but remain forebodingly primordial. Coral also possesses the temporal structure of arrested movement, as it is neither entirely dead nor wholly alive; it can only be perceived as an organism through comparative measurement with or photographic reference to its past positions.[22] The

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[20] Hal Foster, *Compulsive Beauty* (Cambridge, MA and London: The MIT Press, 1993), 29.

[21] Breton, "Surrealist exhibition of objects," cited here from *Surrealism and Painting*, trans. Simon Watson Taylor, 283. For more on the traumatic implications of the found object, see Foster, *Compulsive Beauty*, 30.

[22] According to Foster, Breton's examples of the "veiled-erotic" "evoke a petrified nature in which not only natural form and cultural sign but also life and death become blurred. It is this indistinction that renders the veiled-erotic marvelous, i.e., uncanny, for it suggests the inertia of life, the dominance of death." (Foster, 23.) In *Mad Love*, Breton explicitly refers to coral's suspension between life and death. He writes: "[i]f the very place where the 'figure'—in the Hegelian sense of the material mechanism of individuality, beyond magnetism—attains its reality is above all the crystal, then in my view the place where it ideally loses this omnipotent reality is the coral, reintegrated as it should be in life, into the dazzling sparkle of the sea. Life, in its constant formation and destruction, seems to me never better framed for the human eye than between the hedges of blue tit-mouses of aragonite and the treasure bridge of Australia's Great Barrier Reef." Breton, *L'Amour fou*, 11–13.

aforementioned *Cahiers d'art* edition was a site where temporalities characteristic to natural forms, archaic objects, frozen photographs, and found objects could intermix. Photography is central to its polemic in at least two ways: the medium structures the reader's encounter with objects and structures the temporal character of the objects internal to its reproduction's frames. Breton's editorship evinces these dual surrealist photographic operations: on the one hand photographs reproduce, frame, and re-contextualize objects with a cropping that is "*always*," writes Rosalind Krauss, "experienced as a rupture in the continuous fabric of reality."[23] The photographic frame doubles things and shears them from their original contexts, an act of isolation and identification that parallels the viewer's isolation and identification of signs, or of meanings, as they encounter the world. Foster has observed that "photography produces both the veiled-erotic, nature configured as a sign, and the fixed-explosive, nature arrested in motion."[24] Thus the material photograph produces an uncanny spasm in time. On the other hand, Breton's selection of objects, like corals and crystals, that are arrested in motion indicates that similar, photograph-like operations can be discerned within those particular materials prior to their photographic registration. So Breton illustrated his essay on the crisis of objects, as he would *Mad Love*, with photographs of distinctly photographic objects. Smith reiterated these conjunctions by re-situating his tableaux within the surrealist field, as he re-found and re-framed forgotten objects—turning back to his corals and rocks once they acquired photographic characteristics, performing the very recognition and reiteration that Breton called "magical-

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[23] Rosalind Krauss, "The Photographic Conditions of Surrealism," in *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, MA and London: The MIT Press, 1985), 115. Originally published in *October* 19 (Winter 1981), 3–34.

[24] Foster, 27.

circumstantial." The medium of photography framed Smith's early work. Photography's

temporal characteristics, embedded in coral, framed his return, seemingly providing a precedent

for Smith's collaboration with a filmmaker. But in order to enact and include the full typological

range of "surrealist objects" in one filmic or photographic frame, Smith had to include another

sort of thing: objects made by human hands in a photographic manner. Photographic qualities,

expanded beyond the camera in surrealist projects circa 1936, also provided Smith with an

expanded sense of sculptural production.

Picture Sculpture

Smith's second stint in Paris, during his October 1935–July 1936 trip to Europe,

coincided with the weeklong "Exposition surréaliste d'objets" at Galerie Charles Ratton (May

22–29).[25] It was this exhibition, curated by Breton and seen by Smith, for which *Cahiers d'art*

released its special issue. Breton encased many of the objects reproduced in *Cahiers d'art*, absent

the geological curiosities, in four large wall-bound vitrines. Where photographic reproductions of

crystals and fossils facilitated "[crises] of the object" in *Cahiers d'art*, wood and glass cases

mediated the viewer's perception of objects and sculptures produced or found by surrealist

fellow-travelers and the foreign artifacts that Ratton, a noted dealer in Polynesian and Pacific

North-Western American objects, contributed to the display.[26] In *Cahiers d'art* (and later *Mad*

Love), Breton sought to impel a "total disruption" and "*total revolution*" of spectatorial relations

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[25] The exhibition's advertisement, on the first page of *Cahiers d'art* 11, no. 1, dates the Exposition surréaliste d'objets from May 22 to 31. But the gallery's brochure (presumably produced closer to the date of its installation) indicates May 22 and 29 as the dates of the installation.

[26] Janine Mileaf, *Please Touch: Dada and Surrealist Objects After the Readymade* (Hanover, NH and London: University Press of New England, 2010), 133.

with physical objects via photographically-sparked desires.[27] Similar goals should be presumed

in his curatorial strategy at Charles Ratton. Breton claimed in the exhibition's catalogue that

"[any] piece of flotsam and jetsam within our grasp should be considered a precipitate of our

desire"—a necessarily imaginary "grasp" at Charles Ratton owing to the plate-glass vitrines.[28]

Breton's emphasis on human grip accorded with the small size of the objects on view, and the

polemical emphasis on "grasp[ing]," demonstrates the continued influence of Brassaï and Dalí's

1932 *Involuntary Sculptures* on the surrealist project. The *Involuntary Sculptures*, which debuted

in photographic form in *Minotaure* no. 3-4 from 1933, pictured mangled bus tickets, toothpaste,

a sliver of soap, and other objects pressed, squeezed, or extruded by human hands (fig. 7). As

Katharine Conley has argued, the *Involuntary Sculptures* intersect, via their sterile backdrops and

Dalí-penned captions, with ethnographic photographic tropes.[29] But Brassaï's original reference

to them as "automatic objects" hints that their photographic valences were more structural than

thematic.[30] The *Involuntary Sculptures* were automatically manipulated by their maker's nervous

hands; they encode the trace of those hands in their final form. In 1936, Breton selected

something similar, Stanley William Hayter's plaster and copper-wire statuette *Handshake* (1936),

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[27] Breton, "Crisis of the Object," in *Surrealism and Painting*, 275 and 280.

[28] Breton, "Surrealist exhibition of objects," cited here from ibid., 283. In the *Cahiers d'Art* essay, Breton writes that the object, under this crisis lens, "reverts to an infinite series of *latent possibilities* which are not peculiar to it and therefore entail its transformation." "Crisis of the Object," ibid., 279.

[29] Katharine Conley, "Modernist Primitivism in 1933: Brassaï's 'Involuntary Sculptures' in Minotaure," in *Modernism/modernity* 10, no. 1 (January 2003), 131.

[30] Ibid., 132. According to Rosalind Krauss, the *Involuntary Sculptures* epitomize the framing operations by which surrealism "makes visible [the] automatic writing of the world," as discussed above. See Krauss, "The Photographic Conditions of Surrealism," 115.

an object made by squeezing wet plaster in a fist, for inclusion in one of the vitrines.[31] Smith

produced a suite of etchings at Hayter's "Atelier 17" studio during his first spell in Paris, late

1935, and so would not have been likely to overlook Hayter's work the following spring.[32] Smith

ultimately reiterated key features of *Handshake* in the coming months, evincing an awareness of

the degree to which surrealist sculpture was appropriating not only real objects and their concrete

spatial dimensions for its project, but a sense of lived time as well.[33] Hayter, on Brassaï and

Dalí's heels, inserted the following operations into the context of sculpture: indexing the human

grip, with an automatic exertion; conforming the material to the hand's contours, thus

rearranging plaster's relation to space; visualizing a distinct instant in time, which the object

henceforth references. These are the operations of the camera: automatically fixing the motion of

luminous phenomena on the photographic negative; framing the object, by wrenching it from its

surrounds and isolating it in a new context which conforms to the camera's aperture; confronting

the present with the past, by citing the instantaneous conditions of past processes.

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[31] *Handshake* is listed in Breton's catalogue for the Paris exhibition, and information on its making can be found in *Fantastic art, dada, surrealism*, Alfred H. Barr, Jr., ed. (New York: Museum of Modern Art, 1936), 225. *Handshake* is now either lost or erroneously entered into MoMA's collection as the 1940 *Hand Sculpture*. Something of this gesture—and particularly its application to the upright, vertical form—is undoubtedly masturbatory.

[32] Tracee Ng, "Chronology," in *David Smith Sculpture: A Catalogue Raisonné, 1932–1965* vol. 1, 141.

[33] This sense of discontinuity in lived time was already modeled, in slightly less photographic form, by Alberto Giacometti's *Suspended Ball* (1930–1931) and *Hour of the Traces* (1932). "Because the motion in *Suspended Ball* is real," Krauss writes, "the temporal medium in which it engages is, correspondingly, literal…[it is] the real time of experience, open-ended and specifically incomplete. This recourse to real movement and literal time is a function of the meaning of surreality as taking its place alongside and within the world at large, sharing the temporary conditions of that world—but being shaped by an interior need." Krauss, *Passages in Modern Sculpture* (New York, NY: The Viking Press, 1977), 113–12. Both *Suspended Ball* and *Hour of the Traces* were exhibited at the Exposition surréaliste d'objets. In the exhibition's milieu, surrounded by photographic operations, Giacometti's *Suspended Ball* linked up with the (automatic) photograph. If, as George Baker has observed, the *Involuntary Sculptures* were "props for desire," for the "transformation from one thing into another…bridging [the] gap between object and subject," the very oscillating, uncertain, and almost sadistic surrealist sculptures of the 1930s followed a model that linked desire to the condition of disrupted temporality—to photography. Photography was thus, already by the 1930s, a model for sculpture—and in surrealism, "sculpture became [a] model of subjectivity." See George Baker, "Mind the Gap," *Parkett* 82 (2008), 145 and 146, respectively.

A hand unmistakably clenched the mangled clay that towers over its stone and coral peers in the collaborative film. Smith thus supplemented his found objects, selected on the basis of the new and distinctly photographic valences they acquired after his engagement with surrealist practice in *Cahiers d'art*, with an object he produced based on Hayter's model at Charles Ratton, an object also over-coded with photographic implications. The sculptor could not have missed, as he re-found his corals in a new light, the disparity between *Handshake*'s near-instantaneous squeezing, its slow process of drying and developing, and the viewer's encounter with a finished product. Stone, coral, and clay evince three distinct processes: geologic, organic, and manual. But all geneses of such objects (the stone's forming, the coral's growing, the sculpture's making) are foreclosed to the viewer, who accesses them only at the moment of their encounter. The consolidation of these materials on the same ground, whether magazine, exhibition, film frame, or photograph, was intended by Smith, and before him Breton, to associate the temporal structures of viewership they institute. That association—that framing—might spark a "crisis" in the grasping viewer. The viewer sees things that were seized in time once, and then again, when the collaborators, producing their film, picked up the objects and moved them around between shots.

Framing Movement

The film starts by differentiating one of these objects from its fellows. The stone at far left starts to spin ploddingly, geologically slowly around its axis in the fraction of time between 0:00 and 0:01. Its movement separates it from the other objects, which remain still for eight seconds. Its painfully slow pace dilates the viewer's sense of time, providing them the means to

take in all the scene's features. The stone institutes another schema of time, adding slow motion to the photographic temporality embedded in coral and clay. As the stone moves—haltingly—so the viewer understands the other objects might shift at any moment. This apprehension is confirmed at 0:08 when the stone reverses direction and the clay begins to turn. The jump cut two seconds later jarringly rearranges the stone and clay pieces and dramatically shifts the scene's lighting. This cut jolts the scene's formerly sedate character, and the rapid web of white lines that proceed to climb the clay object's silhouetted form from 0:10 to 0:11 highlight the shocking snapshot-effect of the cut. Through the one-second, sixteen-frame duration of the stone and clay's immobility, the viewer traces out sixteen linear strands that deface the clay— effectively rendering it a support for abstract painting (fig.3). Where the shock of the jump cut violently accelerates the film's events, the lines effectively dilate the proceedings once more. Time is again condensed when the lines disappear and the clay, in the final sequence, jerks 180°, pauses, and twirls at a speed almost beyond the viewer's perceptual reach. In the aftermath of the film (which Posner spliced before a brief flat, geometric, black-and-white abstract scene in the larger *Simple Destiny* compilation), the viewer recalls the 0:10-0:11 sequence far more than both the following three seconds, and the previous slow section. The general impression is one of a film speeding up, until the clay piece nearly whirls off its axis.

Smith and Crockwell augmented temporal disjunction, already fundamental to the viewer's encounter with stone, coral, and squeezed clay, with motion. The temporal schemas that the stone and clay institute by moving at variable speeds are only possible because the viewer has no control over their view of the object. The viewer of the photograph, like that of the vitrine-encased sculpture, sees just what they are given to see—which in the *Cahiers d'art*

photographic reproductions, through the plate glass of the Exposition surréaliste d'objets, and at

the cinema, consists of a stable and inalterable frame. The frame is that operation which both

establishes a common relationship between objects and tears these objects from their contexts.[34]

The human grip subjects clay to a new temporal and spatial frame. The image immobilizes

objects and makes them present beyond their physical duration. Photographs do not reproduce

the spatial existence of their referents; they limit the spectator's view, like films limit the

spectator's mobility. Films cannot even, like photographs, be handled, bent, and carried. Viewers

can circumambulate neither films nor objects enclosed in glass cases set against walls. Films, in

their normative mid-1930s apparatus, only mobilized spectators with mobile cameras.[35]

Immobile cameras, like the one Smith and Crockwell used, limit the viewer's purchase on

objects by controlling how much of any object can be seen, and how sight's temporal conditions

take place.[36] If Smith included coral, stone, and compressed clay in the film via Breton's

precedent, if he used objects that play up their photographic operations, he also highlighted,

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[34] "The frame announces," Krauss writes, "that between the part of reality that was cut away and this part there is a difference; and that this segment which the frame frames is an example of nature-as-representation, nature-as-sign. As it signals that experience of reality the camera frame also controls it, configures it." Krauss, "The Photographic Conditions of Surrealism," 115.

[35] In his recent history of moving cameras, Daniel Morgan compellingly describes the mobile camera as initiating an "epistemic fantasy" of the viewer's own motion. Morgan's repudiation, however, of the primacy of the immobile frame and static shot is incompatible with an analysis of stop-motion animation, as is the notion of identificatory desire with the image at work in his epistemological analysis and the psychoanalytic accounts of suture (e.g. Jacques-Alain Miller, Laura Mulvey). See Morgan, *The Lure of the Image: Epistemic Fantasies of the Moving Camera* (Oakland, CA: University of California Press, 2021), 14, 76–86.

[36] Roland Barthes refers to a "blind field" that constitutes the sensed spatiotemporal extension of the filmic frame; photography attains a similar field only when the viewer adds a *punctum* to the image. "Do I add to the image in the movies?" Barthes writes, answering, "I don't think so; I don't have time." (Roland Barthes, *Camera Lucida: Reflections on Photography*, trans. Richard Howard (New York: Farrar, Straus and Giroux, 1981), 55.) Barthes separates photography from film via this limitation, or extension, of the frame: "[like] the real world, the filmic world is sustained by the presumption that, as Husserl says, 'the experience will constantly continue to flow by in the same constitutive style'; but the Photograph [*sic*] breaks the 'constitutive style' (this is its astonishment); it is *without future*…in it, no protensity, whereas the cinema is protensic, hence in no way melancholic" (ibid., 89–90). We could situate stop-motion cinema, as will be argued below, at a kind of interstice between photography and film.

along with Crockwell, the way that the object's movement in time before an immobile viewer can repudiate their "grasp." The stone never completes a full rotation. One of its sides cannot be seen. The clay spins at a speed beyond cognizance. The corals grow imperceptibly. The viewer selectively recalls, after fourteen short seconds, a series of movements and poses that do not add up, because the viewer remembers simply a series of photographs.

Stop-motion Media

Crockwell repeatedly stressed, in an unsent letter addressed to Smith's 57 Poplar Street, Brooklyn Heights studio, his desire to produce a film that would distort its viewer's sense of time. Crockwell scrawled "suggestions for animation" on the envelope and enclosed a one-page, nineteen-point document titled "Fields for exploration"—a list of ideas including "psychopathic effects," "hypnotic effects," "movement of color light patterns and symbols," "overlay of light patterns," and "free movements unencumbered by inertia or momentum."[37] Five of Crockwell's "fields" recommend the distortion of filmed objects through the play of light and projection. Crockwell reiterated, here, strategies that loom large in Man Ray's *Emak Bakia* (1926), the major precedent for Smith and Crockwell's collaboration. Both artists could have seen *Emak Bakia* at one of its repeated screenings, beginning in 1932, hosted by Julien Levy Gallery, New York.[38] To produce *Emak Bakia*, Man Ray intercut sequences of unfocused spinning glass objects, turning

[37] Crockwell, "Fields for exploration," correspondence from Douglass Crockwell to David Smith, Box C364, Folder 10, Douglass Crockwell Collection, 1897–1976, Moving Image Department, George Eastman Museum, Rochester, New York. I thank Sophia Lorent at the George Eastman Museum for facilitating my access to the collection, and making available this letter which, as far as I know, is the only documentary trace of Smith and Crockwell's collaboration, and which has heretofore never been cited or published.

[38] Smith frequented the gallery, and showed two iron and several wood sculptures at a group show at Julien Levy Gallery in 1934. See Smith, "Autobiographical Notes," in Susan J. Cooke, ed., *David Smith: Collected Writings, Lectures, and Interviews* (Oakland: The University of California Press, 2018), 101. Hauser & Wirth's David Smith exhibition list dates this show to 1936.

wheels, moving illuminated signs, and rotating sculptures with short shots of Kiki de Montparnasse and Jacques Rigaut. *Emak Bakia* is largely comprised of shots in which soft-focus lenses, spaceless black backdrops, double-exposure techniques, and rayographic animations abstract recorded objects, rendering them "whole pattern[s] of complex light reflections," as Steven Kovács has observed.[39] The viewer cannot determine the material consistency of most objects—are they glass, crystal, stone?—only their scintillating movement. *Emak Bakia* pares most of its objects down to the play of light on celluloid, making its constituent material parts look ghostly. Similar effects were on Crockwell's mind when he penned his nineteen "fields." The flap of Crockwell's envelope contains a small pencil sketch of four objects, one captioned "aspheric condensory [*sic*] lens," and another "plano convex" (fig. 8).[40] The collaborators never included these distorting glasses as objects or lenses in their film. However, Crockwell's suggestion that they focus on luminous distortion indicates that the movement of light, primary in *Emak Bakia*, was his foremost concern at the initiation of his collaboration with Smith. Smith and Crockwell would largely discard this design, repeating none of *Emak Bakia*'s spatial and visual effects while they rotated their brightly-lit objects before a dark background. The collaborators did, however, resist the temptation to let rotation display the entirety of an object: even when the clay piece completes its sole full rotations in the three final seconds, its entirety cannot be apprehended. It spins too fast, and the light is too bright.

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[39] Steven Kovács, *From Enchantment to Rage: The Story of Surrealist Cinema* (London and Toronto: Associated University Presses, 1980), 124. "Rayographs" were Man Ray's term for photograms; the sequence from 0:43 to 0:50 is clearly a set of stills made by dropping pins on photo-receptive surfaces.

[40] Crockwell's shapes correspond to their captions: the navette-shaped outline looks like an aspheric lens, and the thin semicircle like a plano-convex lens. These types of lenses are generally used for scientific imaging and to focus or diffuse light.

While Man Ray shot most of his 1926 film in "real time" with his objects turning

smoothly on hidden axes, he produced one segment by means of stop-motion animation. At this

moment about halfway through the film, crystal-clear focused little geometrical forms dance on a

tabletop, including a violin scroll and a pair of dice, as well as some of Man Ray's "mathematical

objects" later reproduced in the Breton-edited issue of *Cahiers d'art* (fig. 9). The uneven, halting

quality of these objects' motion indexes the scene's mode of production: stop-motion animation

is a mode of film that can only, under the most labor-intensive circumstances, produce the

illusion that still images onscreen move continuously.

Stop-motion animation produces a sensation of movement with a series of unstable stills.

Objects animated with this technique jump and start, and never at a consistent pace. This is a

function of stop-motion animation's low frame rate and high margin of difference between

frames, features which are not necessary to the medium—it could in theory be produced

seamlessly—but which are practically unavoidable without a high degree of industrialization

across the production process that would regulate the movement of models between frame

exposures.[41] The viewer senses these temporal inconsistencies, which are also internal to stop-

motion's manufacture: whereas in "real time" the film apparatus shoots movies at the same speed

it later projects them, registering a tiny blur on each mobile object shot (easing one frame's

transition into another), animated films are produced with a gap between each increment, a gap

during which the next set of cels (in drawn animation) or the next movement of the model (in

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[41] Linda Jean Obalil, "Aesthetics of Stop-Motion Animation," (Ph.D. diss., Northwestern University, 1982), 15–19.
In "A Background to Free Animation," Crockwell cites this process as key to his 1938 discarding of earlier labor-,
time-, and cost-intensive modes of production (implicitly including the collaboration with Smith). "Because of the
involved technique [in animation]," he writes, "thousands of man-hours were required for even a short length of
finished film. The inevitable high cost made it necessary that popular themes be executed…It has always been this
high cost that has held back animation experiment." Crockwell, "A Background to Free Animation," *Film Culture*
32 (Spring 1964), 30.

stop-motion animation) is applied.[42] Each stop-motion frame is wholly in focus unless subjected

to postproduction effects.[43] In Man Ray's *Emak Bakia*, the stop-motion sequence highlights the

uneven quality of shooting endemic to many of Man Ray's films, which constantly jump and

start with changes in lighting and camera position. Through a lack of patience or a surplus of

intent, Man Ray moved his objects substantially between each frame exposure while making the

1926 stop-motion segment. The high margin of difference between successive frames seems to

decompose motion; rotation under such conditions emphatically underlines stop-motion's

incessant repetition. Smith and Crockwell's collaboration was produced solely through stop-

motion technique, and the medium's temporal disjunctions are palpable therein. The producers'

quick cuts, pace changes, and temporal dilation and compression thematize the operations of

stop-motion animation, stressing its uneven mode of making objects animate. Some of their

film's sequences could have easily been produced by inserting a shaft into the bottom of the

objects and turning it, unseen below the landscape's surface, in front of a camera shooting in

"real time," had Smith and Crockwell not *wanted* their film to be temporally disjunctive—a

desire highlighted when, as in Posner's *Unseen Cinema* DVDs, their film is screened at 16

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[42] For a compelling reading of the frame-by-frame production process in two-dimensional animations, see Hannah Frank, *Frame by Frame: A Materialist Aesthetics of Animated Cartoons* (Oakland, CA: University of California Press, 2019).

[43] Obalil, 22–25.

frames per second (fps). Rapid movements shot and screened at 16fps are either jerky or

dramatically blurred on account of the film's low frame rate.[44]

Photography over-codes the medium of stop-motion animation because the viewer

senses, in the lapses and blurs between instants, the huge gaps between production and

presentation speed, and one image's replacement by another, and then by another. Each new

frame testifies to the still model's position when the film was exposed. While film at 24fps

laminates one image over the next so fast pictures are reconstituted in the viewer's mind as the

consistent movements of a cohesive gestalt, stop-motion animation frames screened at 16fps

hover between mobility and stasis. Successive images do not meld with but rather overwrite their

immediate predecessors, evincing spatial disparities too great for the screening apparatus to

smooth over. Viewers of a stop-motion film sense a gap between the image they remember and

the image they barely have time to see. They have always arrived too late, and register the past as

a barely-perceptible difference between one image and the next. The swift replacement of

pictures prompts their memories' almost-involuntary comparison between frames in the blink of

an eye. Insofar as stop-motion films strip the spectator of their agency over the advent of

memory, they organize temporal experiences and code viewers as passive observers, making the

latter feel subject *to* the apparatus' operations.

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[44] Crockwell confirmed this desire in an August 31, 1946 letter to Frank Stauffacher, noting that he produced all his films with the intention of their 16fps screening. See Crockwell, "Letter to Frank Stauffacher from Douglass Crockwell, 8/31/46," collected in *Art in Cinema: Documents Toward a History of the Film Society*," Scott MacDonald, ed., (Philadelphia, PA: Temple University Press, 2006), 32. 16fps was the average production speed of silent cinema, and was generally screened between 16–24fps. If the collaboration was read through Crockwell's investment in histories of early cinema (which were only articulated late in his career), its silent film presentation speed, tableau-style setup, and immobile camera might reflect a desire to extend the experiences of early cinema into the 1930s. Stop-motion animation, according to this speculative reading, would encode the hesitant movement of early cinema—a project Crockwell explicitly undertook through his late-career collection and production of mutoscope machines, exhibited at MoMA in 1967.

Breton theorized this temporally-induced blur between subject and object, intention and compulsion, through the examples of crystals, corals, snapshots, and found objects. In Breton's formulation, these materials exert a temporal agency over their viewers by forcing an uncanny confrontation between mobility and stasis. Stop-motion's multiplied photographs exacerbate whatever confrontations its still frames or depicted objects might induce, stripping the viewer wholesale of their cognitive agency. In some of his earliest formulations of the marvelous, Breton explicitly connected the clash of image and memory (later exemplified by photographs and photographic objects) in collage to cinematic special effects such as "slow motion and fast motion cameras."[45] "Who knows," he wrote of these techniques he situated as inheritors of photographic automatism, "whether we may not thus be preparing to escape one day from the principle of identity?"[46] Subjective unity itself was at risk of breaking down, according to this 1920 essay on Max Ernst; new media technologies (including photography, film, and collage) pointed to the coming fragmentation of humanity itself. By 1936, Breton hedged against this early suggestion, developing a position according to which "automatism," as Foster explains, "is to resolve the opposition of perception and representation."[47] But it was too late to corral photography's implications or to prevent the surrealist fracture of perspective from corroding the spectator's grasp on things. Stop-motion films accumulate images to a fever pitch. Photographing coral, stone, and squeezed clay once throws their snapshot quality into relief.

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[45] Breton, "Max Ernst," trans. Ralph Manheim, in Ernst, ed., *Beyond Painting: And Other Writings* (New York, NY: Wittenborn, Schultz, 1948), 177. Breton claims that Ernst's collages "[project] before our eyes the most captivating film in the world." Foster describes this text as articulating the "nascent aesthetic of surrealist dislocation." Foster, 20.

[46] Ibid. Breton opens his essay by noting that "photography has dealt a mortal blow to the old modes of expression." Breton, "Max Ernst," 177.

[47] And thus, implicitly, to suture and "resolve" the spectator's crisis of identity. Foster, 16.

Photographing them many times, from slightly different positions, multiplies their forms. Stop-motion animation gives its spectators many views—many photographs—of the same objects, views which do not entirely combine. In Smith and Crockwell's film, these stuttering shots depict objects already rent, internally, by an uncanny time.

<u>The Sculpture Context</u>

Photography motivated Smith's understanding of sculptural space and form; that much is clear from Sarah Hamill's emphasis on photographic framing, scaling, and focusing in her book on the sculptor.[48] Smith's interest in other photographic operations, less tied to the physical camera apparatus, is evidenced in his collaboration with Crockwell. Their film encodes photographic experience on levels ranging from the material constitution of depicted objects to the mode of experience stop-motion animation engenders. Insofar as each artist was concerned with the delineation of their mediums, sculpture for Smith and film for Crockwell, their foregrounding of photography suggests the latter medium's expedience as they sought a ground for collaboration.[49] However, their conjunction of sculpture and film—where both are experienced and eroded through photographs—represents neither a resolution of the artists' two respective mediums, nor of sculpture and film with photography. For Smith, sculpture and photography were, Hamill notes, "separate media that construe different encounters with

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[48] See Hamill, *David Smith in Two Dimensions*, "Introduction" and chapters 1 and 2, 1–87.

[49] For more on the medium-specific goals and receptions of Smith's work (as well as numerous contestations), see Christopher Lyon, "Shaping Attention: Key Topics in the Reception of David Smith's Sculptures," in *David Smith Sculpture: A Catalogue Raisonné, 1932–1965* vol. 1, 99–133. Crockwell writes about his investment in defining cinematic media in "Peep Show: The Past and Future Mutoscope," and "A Background to Free Animation."

sculptural space."[50] Photography served as the most relevant model of compromise for, but not combination of, the artists' concerns.

Turning to Smith's sculptures in the mid-1930s provides one context for discerning the ramifications of his stop-motion experiment. In the mid-1930s, Smith worked on a series of sculptures which look radically different from any two angles. These works, such as the small painted-steel *Aerial Construction* (1936), trace out linear webs in space, some corners of which are filled in with solid planes (fig. 10).[51] No single perspective on *Aerial Construction* accords with other vantages on the same sculpture. *Aerial Construction* looks complete to the viewer from every position around the work—and completely different from the viewer's previous perception. In the words of Rosalind Krauss, *Aerial Construction*, and many of Smith's sculptures from that era, are experienced by their viewers "as surfaces that are somehow disconnected, disjunctive, and shifting relative to one another because no core, not even a relief plane, will grant them a fixed point of unity."[52] According to Krauss, things with "no core, not even a relief plane" turned away from the legacy of the nineteenth-century relief sculpture tradition, which prioritized the production of objects which would convey a single gestalt.[53] "By making sculpture that would be perceived in terms of extended and interconnected surfaces," Krauss continues,

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[50] Hamill, *David Smith in Two Dimensions*, 75.

[51] Smith made *Aerial Construction*, and several reclining figures, shortly after his return to New York from Europe. Ng, "Chronology," *David Smith Sculpture: A Catalogue Raisonné, 1932–1965* vol.1, 141.

[52] These words appear in both *Terminal Iron Works*, page 36, and verbatim four years early in *David Smith: eight early works 1935-38*, n.p., the catalogue for an eponymous exhibition at Marlborough-Gerson Gallery, New York.

[53] See Krauss, *Terminal Iron Works*, 16–37.

Smith could force the viewer to recognize that the sculpture spread before him was unlike other objects. To force the work to appear entirely open and *visible* from a fixed point of view is to provoke the illusion that a sculptural object, like a picture surface, can be known all at once. The knowledge it addresses itself to is knowledge of this fact rather than any 'essentialist' knowledge about the physical world, because when surface becomes that thing beyond which there is nothing to see, then the sculpture is wholly unlike objects in the world.[54]

In Krauss' argument, a disjunction internal to Smith's sculptures separates them from "objects in the world," just as the photographic frame throws such operations of selection and isolation into relief. The difference between sculptural and everyday object categories in Smith's work can, according to Krauss, be perceived from any single point of view—they look like surfaces, not like dense objects. This argument can only be verified by moving around the sculptures.[55] In three dimensions, Smith's work appears as a series of surfaces; in two dimensions, as Hamill claims, Smith's work is often a series of images.[56] Multiple views or photographs of a Smith sculpture made after 1936 do not seem to represent the same sculpture. Smith's sculptures are objects in "crisis," failing to cohere into a distinct and stable set of meanings, and forms, for their viewers.

Whereas Smith's sculptural work repudiates its circumambulating viewer's desire to perceive a cohesive, unitary gestalt, objects in the collaboration with Crockwell rotate before the viewer and likewise don't cohere into selfsame things. These rotations are just partially

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[54] Ibid., 37.

[55] As Hamill observes, Krauss bolsters her argument with, and possibly derives her rhetoric on the basis of, two different photographs of Smith's *Blackburn, Song of an Irish Blacksmith* (1949–1970).

[56] Hamill's introductory gloss on Smith's work reads: "[broadly] speaking, Smith's sculptures are composed of incongruous images that destabilize perception. They unsettle idealist expectations that an object is something made up of an inside and an outside." Hamill, *David Smith in Two Dimensions*, 3. See also her reflections in "The Adventure Viewed, David Smith's Photography," in *David Smith, Sculpture: A Catalogue Raisonné, 1932-1965*, Christopher Lyon and Susan J. Cooke, eds., vol. 1 (New York, NY: The Estate of David Smith and New Haven and London: Yale University Press, 2022), particularly pages 36-37.

performed or partially perceptible. While the two different experiences—mobility around Smith's sculptures and immobility before the film—cannot be resolved with their contradictions overcome, both imply a mode of viewership wherein the past presses claims on the present, whereby memory cannot recall experience in a linear fashion. The form of photography at work in the collaborative film does not offer a single, unitary, or empirically documentary representation of its referents. It constitutes experience, rather, through jumps, starts, and jumbled recollections. If Krauss is right that Smith's sculptures are "wholly unlike objects in the world," they can nevertheless be experienced at a pace of the viewer's choosing. The mode of viewership in Smith's collaboration with Crockwell is wholly unlike that of everyday experience. This "unlikeness" exacerbates the uncanny valences of photography, and of objects that might, under the right conditions, produce photographic effects. Each moment in stop-motion is haunted by the frame immediately preceding it, suffering a crisis of the viewer's consciousness—for no single frame seems to confirm that the object is still *or* mobile.

The film's inclusion in the oeuvre of David Smith—which, excepting Posner's *Unseen Cinema*, was delayed until Smith's 2022 *catalogue raisonné*—demonstrates that in the 1930s, photography was a predominant concern for the sculptor in a manner including but exceeding the spatial operations noted by Hamill.[57] Smith ditched coral and clay in the following decades. His primary object became industry, and the "skills, livelihoods, and lifeworlds" of previous productive modes that could be preserved and monumentalized in sculptures.[58] The collaborative

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[57] In addition, that is, to "[using] photography to envisage dialogues between objects, bodies, and spaces; to suggest disorienting vantage points for his sculptures and dramatize their pictorial qualities; and to dislocate the scales and settings of his forms," Smith embedded photographic notions of space and materiality, gleaned from surrealism within his sculptural projects. See Hamill, *David Smith in Two Dimensions*, 9.

[58] Anne M. Wagner, "David Smith: Heavy Metal," in *A House Divided: American Art since 1955* (Oakland: University of California Press, 2012), 114.

film provides a new frame for these later projects, however, one that interprets his brushed and painted steel as a reflection on labor, medium, and the uncanny spatial and temporal junctures natural to stilled organisms, found things, and photographs. For Smith, photography was a concept as much as it was a material, a discursive figure constituted by temporal cuts in the world, a form that other mediums could ape. At its logical extreme in stop-motion animation, photography replaced the spectator's agency with an uncanny unfreedom. This perhaps explains, more than a shift in sculptural substances, Smith's discarding the experiment with Crockwell, his omitting the project from all written and spoken records. Objects in crisis are one thing. Spectators in crisis are another.

Coda: Negative Prints, Positive Paint

In Smith and Crockwell's film, two objects twirl beside imperturbable corals. During the clip's first four seconds a dark line emerges from shadow, nears the viewer, turns to parallel the screen and then disappears over the horizon. Then the line disappears. It reappears, in a different position, immobile, with the jump cut at 0:10 as its white counterparts graffiti the clay figure's front. When a strong light emanating from the space above the viewer's head blows the entire scene out, shadows stretch out from all object's bases (fig. 4). These shadows reach towards the viewer. They contradict the lighting direction. And they don't quite conform to their respective object's shapes. The shadows are failed, paradoxical indexes. Inverting the colors of this sequence reveals that these shadow's sources are not light, but paint; in the light of the positive print, the drawn shadows no longer oppose their light source but the source of their appearance

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does not correspond to light's lack (fig. 6). The "shadows" are paintings. They only take on the look of shades in negative.

The shadows in the film's final sequence were added manually, in white paint, atop the dark surface of the landscape and the models in between shots. The camera apparatus inverts what it receives, registering light as shadow and shadow as light. Revealing the shadows in the collaborative film to be painted marks implies that while they are indexes on the level of their inscription onto celluloid, they are also false icons (representations) of the indexes (shadows) that should grant substance to their respective objects. The negative print of the raw film strip is faithful to the camera's operations. The negative print is thus a reproduction of an original trace or inscription, and the positive print is a radical manipulation, an inversion, of the original indexical registration. The drawn shadows in Smith and Crockwell's film are thus real, unmodified copies of the image itself, whereas the positive print, which reveals shadows to be paint, is the image's unreal double. This shadow-play builds on a common preoccupation with shadows in the surrealist imaginary. In "Surrealist Precipitates: Shadows Don't Cast Shadows," Denis Hollier observes that painted shadows, widespread in surrealist projects, are often not indexes of a reality internal to the picture plane: rather, they are icons shorn from depicted origins, and "use the iconic detachment of the photographic index to produce pictorial catachreses: they represent an object that has never been presented."[59] The shadows in Smith and Crockwell's film are icons that, owing to the speed of the segment in which they appear, look like indexes. They represent objects that have already been presented, such that their indexical

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[59] Denis Hollier, "Surrealist Precipitates: Shadows Don't Cast Shadows," trans. Rosalind Krauss, *October* 69 (Summer, 1994), 119. Shadows separated from their subjects are also central figures within psychoanalytic theories of the uncanny; see, for instance, Otto Rank's *The Double: A Psychoanalytic Study*, or Freud's "The Uncanny."

mien reflects photography's repetitive, transformative, and temporal feints, rather than its reproductive functions.

As indexes, and icons of the same, the shades associate the imprint of light with the mark of the hand, collapsing the fall of light on celluloid during frame exposures with the acts of painting which, in stop-motion animation, occur in the interstices between frame exposures. The film's matrix renders paint and shadow as identical operations that exogenously determine a material surface, analogs to the ur-possessive clench of hand on clay.[60] While neither human grip, nor celluloid strips, featured as Smith's primary media after 1936, he devoted increased attention to variegating his sculptural finishes in the following years. The scrawled and patterned veneers of the late *Sentinel* (1956–1961) and *Cubi* (1961–1965) series effect "translucent, vibrating plane[s]," making their component sculptures look "miragelike" and visually unstable (fig. 11).[61] This serves, as Krauss has argued, to de-realize sculptural volume, such that "surface becomes the totality of the [sculptural] experience."[62] Smith's collaboration with Crockwell provides an alternate but complementary interpretation for these inscriptions, according to which his late facades register the traces of material transformation.[63] "[Of] course," Frank O'Hara

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[60] Insofar as the collaborative film collapses these different acts into an indexical and implicitly photographic process, it suggests that the artistic gesture itself—vaunted by, for example, Harold Rosenberg as a font of artistic meaning in the coming years—participates in a broader crisis of social meaning and instability.

[61] Sarah Hamill, "Polychrome in the Sixties: David Smith and Anthony Caro," in Rebecca Peabody, ed., *Anglo-American Exchange in Postwar Sculpture, 1945–1975* (Los Angeles: The J. Paul Getty Museum, 2011), 98; Krauss, *Terminal Iron Works*, 99. Hamill made her remarks here in reference to Smith's 1961–1964 *Zig* series; while the *Zigs* are painted, not polished, their brushstrokes are so thickly set and overlapping as to suggest a continual removal, rather than addition, of colored enamel to the surface.

[62] Krauss, *Terminal Iron Works*, 99.

[63] A third, but more speculative, interpretation could be advanced on the basis of Bataille's writings on graffiti, which is a kind of registration of the self onto a surface, lacerating both this surface and the marker themself with a kind of "automutilation."

wrote about the flecked surfaces, "it is really all a matter of light, light sinking, light dashing into

the surface, light bouncing back at you."[64] If sculptural contours frame the scratches, the latter in

turn reframe the sculptures as shimmers that shift in the blink of an eye. This luminous play is

the result of the polishing wheel "sinking," "dashing into," steel, and then of sunlight filling or

shading the low gashes. The glimmering marks are not natural extrusions of sculptural form:

they are intrusions on its consistency, reframing and remaking the object in the image of a certain

mode of production. That mode, always repeated across the surface of the whole sculpture, is

repetitive, and industrial. It is manual production reimagined as an automatic process.

In "David Smith: Heavy Metal," Anne M. Wagner advances the claim that Smith's late

sculptures recuperated industrial castoffs to mourn assembly-line workers' rapid obsolescence

and the obfuscation of their labor and subjectivity in standardized commodities.[65] "[Does]

Smith's own sleight of hand," she then asks, "not overlook or erase the standardization of skills

and movements to which the factory worker was forced to conform?"[66] If a succeeding

generation of sculptors posed the same question and rejected Smith's espousal of skill, they may

have overlooked, in their embrace of past avant-gardes, an alternative history of industry and

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[64] Frank O'Hara, "David Smith: The Color of Steel," *Art News* 60.8 (December 1961), 69.

[65] Wagner, 113–15.

[66] Ibid., 116. In "Michael Asher and the Conclusion of Modernist Sculpture," Benjamin H.D. Buchloh argues that Smith failed to reconcile his mode of production with, or to make it reflect, that of industrial society—producing instead what Buchloh refers to as the "mythification" of "that blatant contradiction between individual aesthetic production and collective social production, that between construction and found object." See Buchloh, "Michael Asher and the Conclusion of Modernist Sculpture," in *The Centennial Lectures of the Art Institute of Chicago*, ed. Susan Rossen (Chicago: Art Institute of Chicago, 1983), 282. Shorter versions of this essay appeared in 1980 and 1981, and the rendition published in *Neo-Avantgarde and Culture Industry*, 2000, omits the final clause cited here.

indexicality in twentieth-century sculpture.[67] This history was embedded in precisely those painterly practices Smith applied to his figures: the gestures that de-realize the sculptures once, on the level of their volume, and again on their temporal plane. These are the marks of someone's quasi-automatic inscription, the traces of a scribbling hand—less a testament to human subjectivity than evidence of semi-regularized, repetitive work from the past. That Smith never claimed this position might indicate it barely subsisted under the surface of his career. That he abandoned its earliest precursor, however, is the symptom of a denial—of an attempt to reclaim a form of agency that, as his surrealist influences observed, was no longer tenable. Sculpture as a kind of photography would live underground for Smith's remaining thirty-odd years. But it would be visible when the light caught it just right.

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[67] Buchloh's position, cited above in fn.66, provides a good gloss on what minimalists took issue with in Smith's project; see also Robert Morris' biting irony in "Notes on Sculpture, Part 1," and Donald Judd's "Specific Objects." Building off Krauss' claims cited above in fn.33, Baker observes that surrealism was first reclaimed by the neo-avantgardes "in the context of Minimalism's literalist sensibility (which revalued Giacometti's real movements and objects inserted into real spaces)." Baker, 148n5. Smith's extension of surrealistic photographic temporality, an early reevaluation of surrealism's phenomenological implications, is perhaps only visible in light of minimalism's analyses of "real movements," "real spaces," and "real time." Read accordingly, Smith's work also represents an unrecognized recovery of what Baker calls "a Surrealist 'sculpture-as'"—an untimely sculpture-as-photography. Ibid., 145.
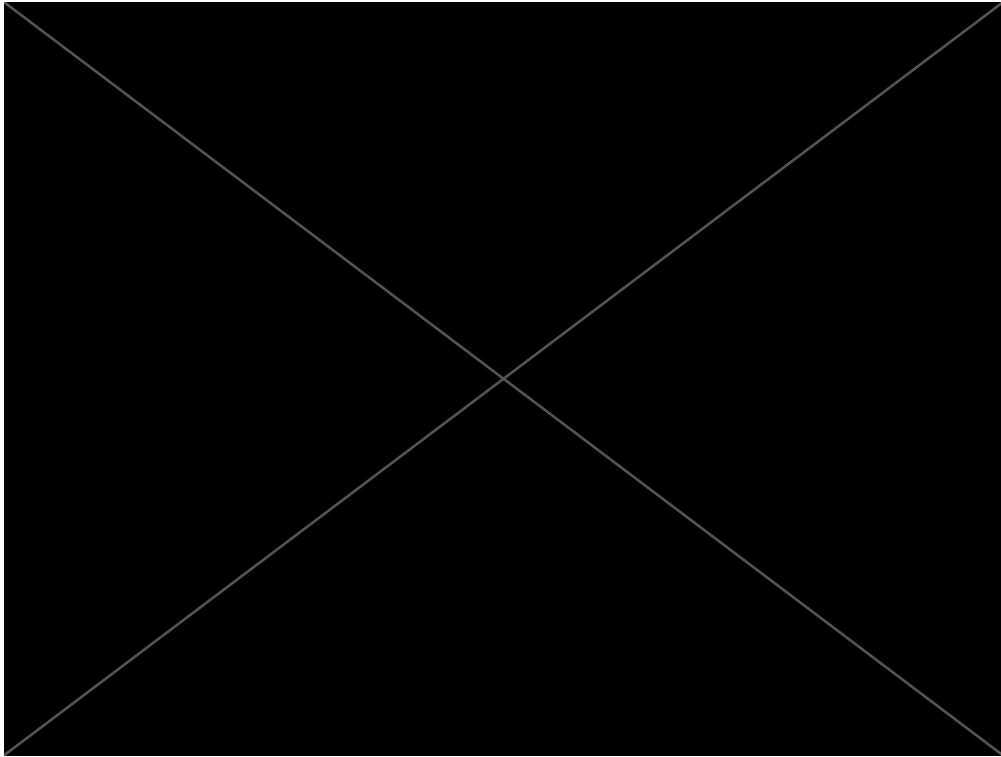
Figure 1: Douglass Crockwell and David Smith,
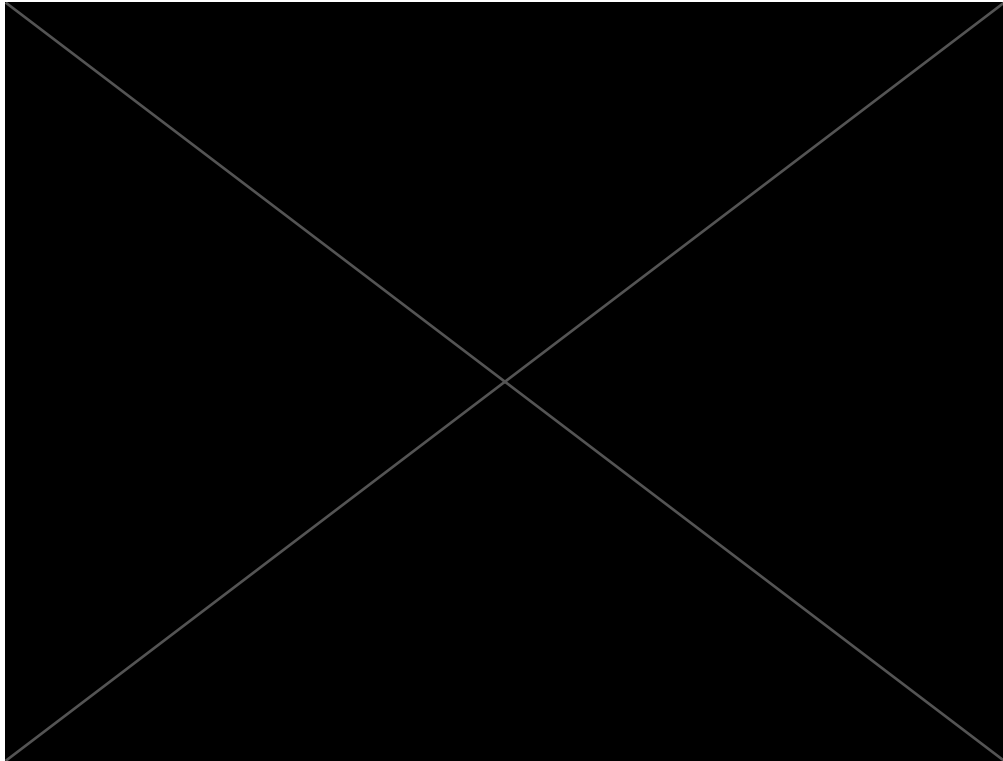untitled 16mm film, c. 1936–1937.

Figure 2: Douglass Crockwell and David Smith,
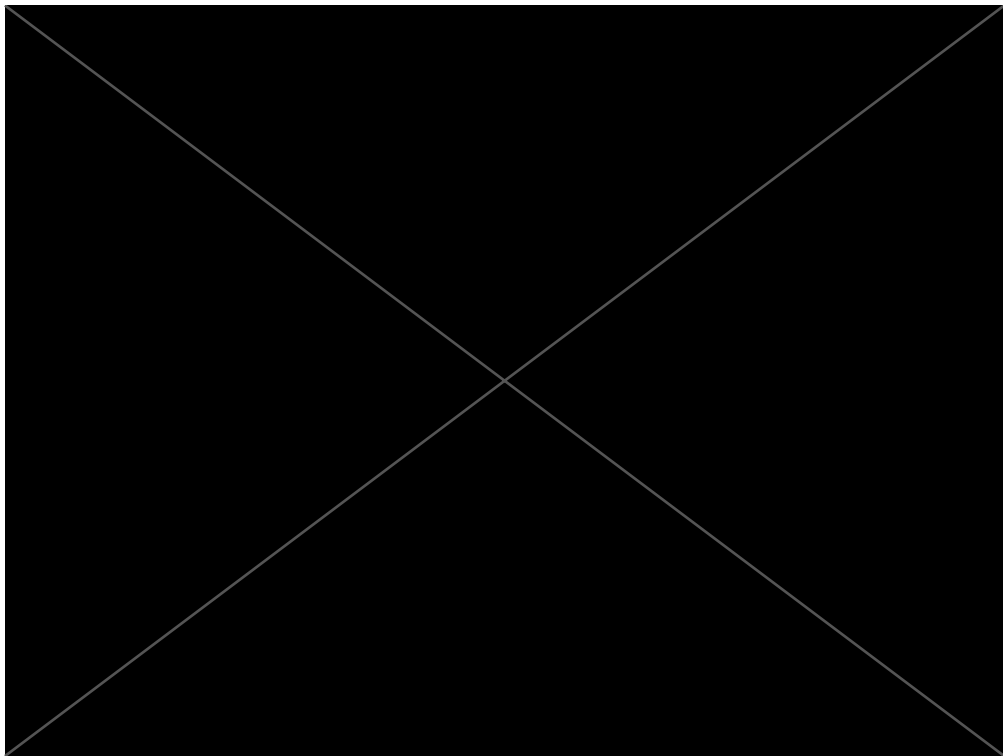untitled 16mm film, c. 1936–1937.

Figure 3: Douglass Crockwell and David Smith,
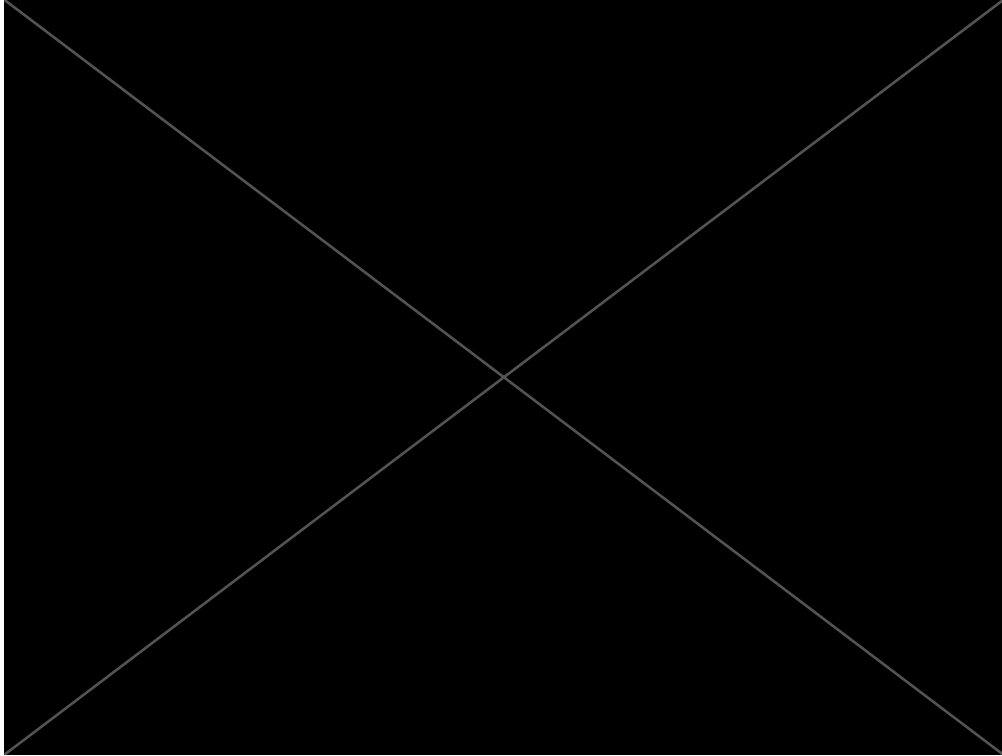untitled 16mm film, c. 1936–1937.

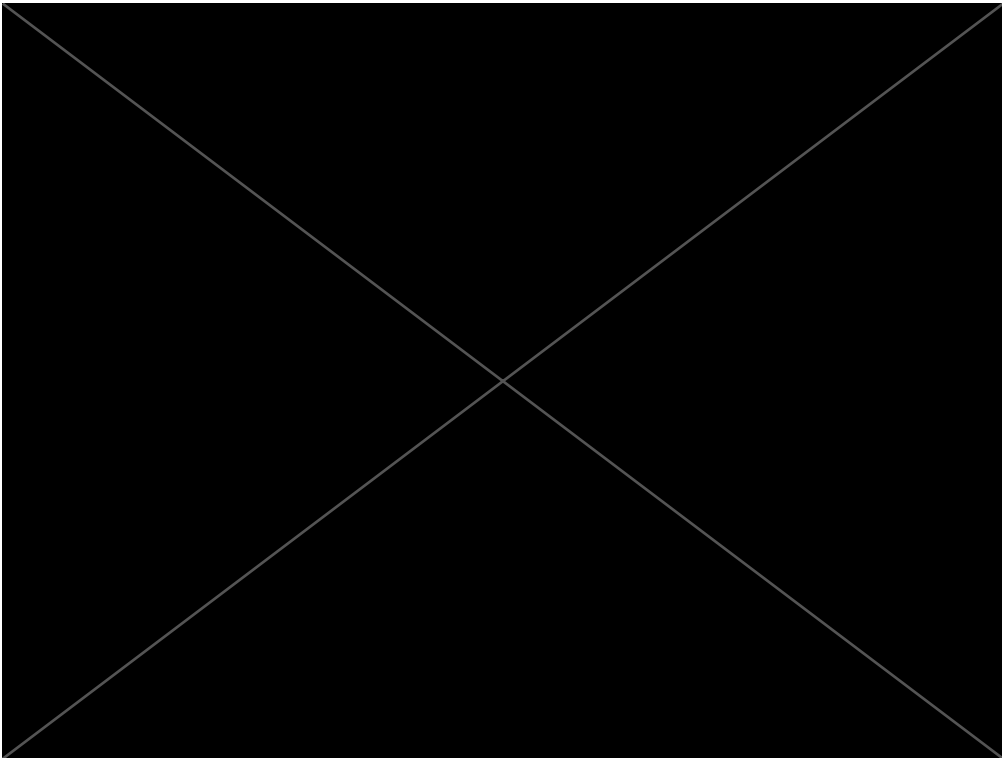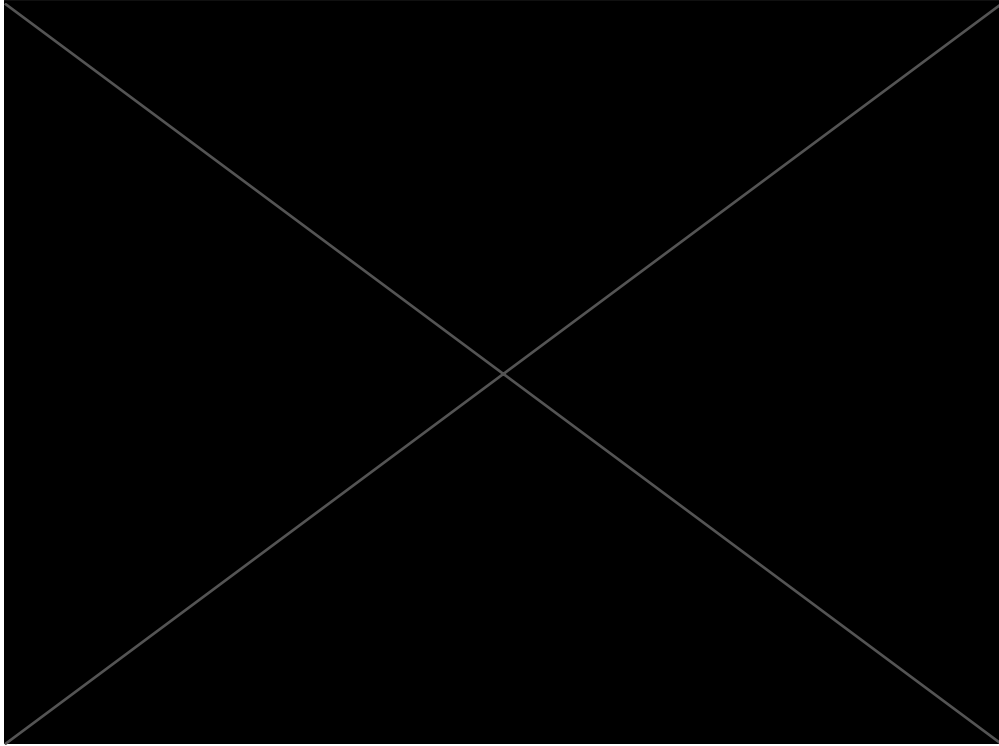**Figure 4**: Douglass Crockwell and David Smith,
untitled 16mm film, c. 1936–1937.

Figure 5: Douglass Crockwell and David Smith,
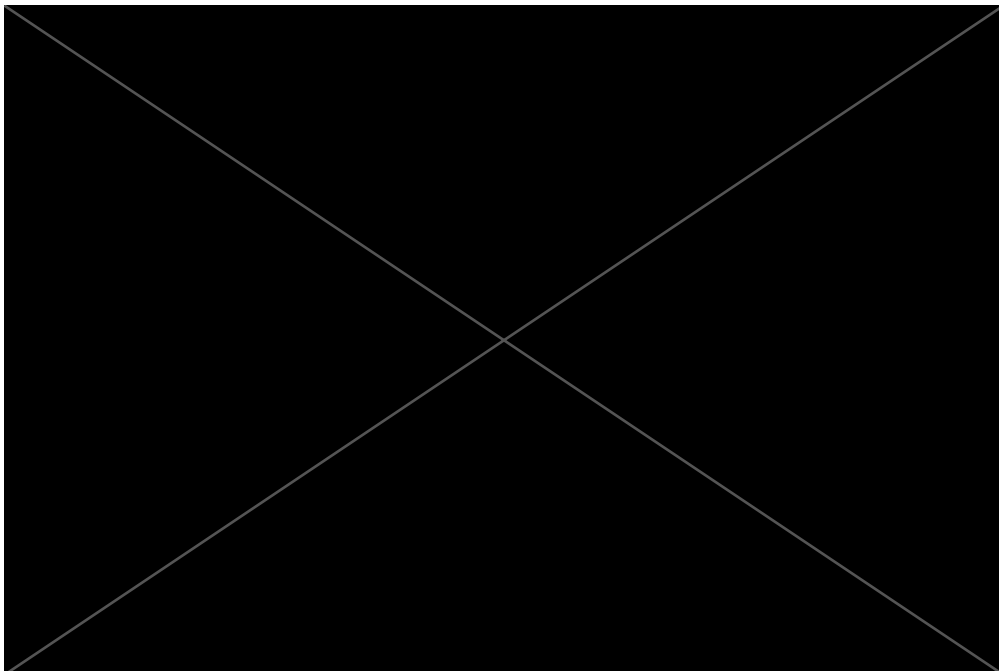untitled 16mm film, c. 1936–1937.

Figure 6: Douglass Crockwell and David Smith,
untitled 16mm film, c. 1936–1937, inverted by the author.

Figure 7: Brassaï and Salvador Dalí, *Involuntary Sculpture: Rudimentary
[Paper] Roll Obtained from a Mentally Disabled Person*, gelatin silver
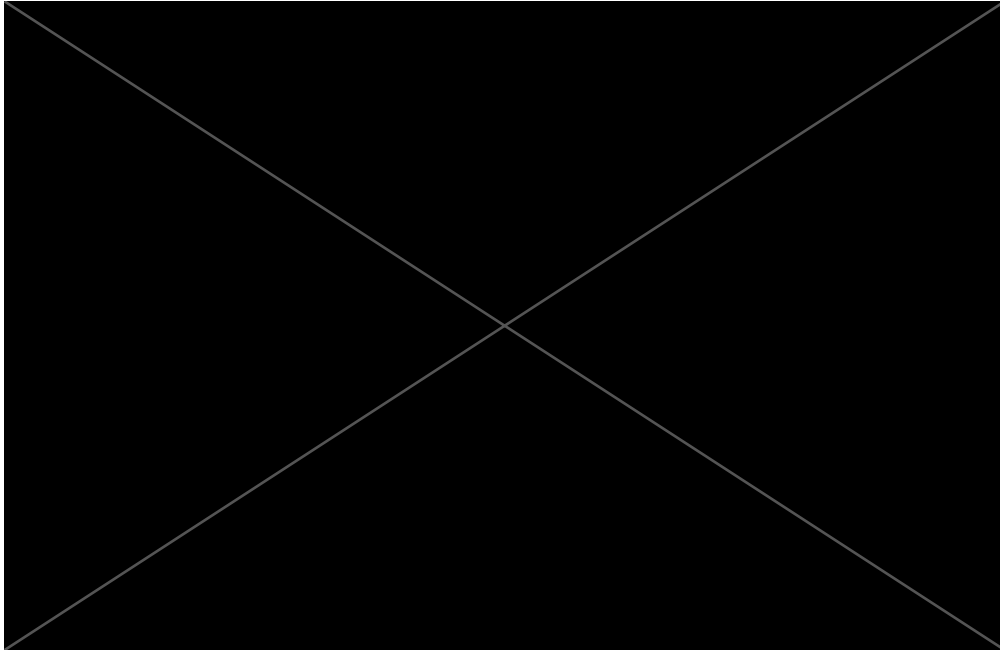print, 1932. Metropolitan Museum of Art, New York.

Figure 8: Douglass Crockwell, detail from "Fields for exploration," correspondence from Douglass Crockwell to David Smith, Box C364, Folder 10, Douglass Crockwell Collection, 1897–1976, Moving Image Department, George Eastman Museum, Rochester, New York.
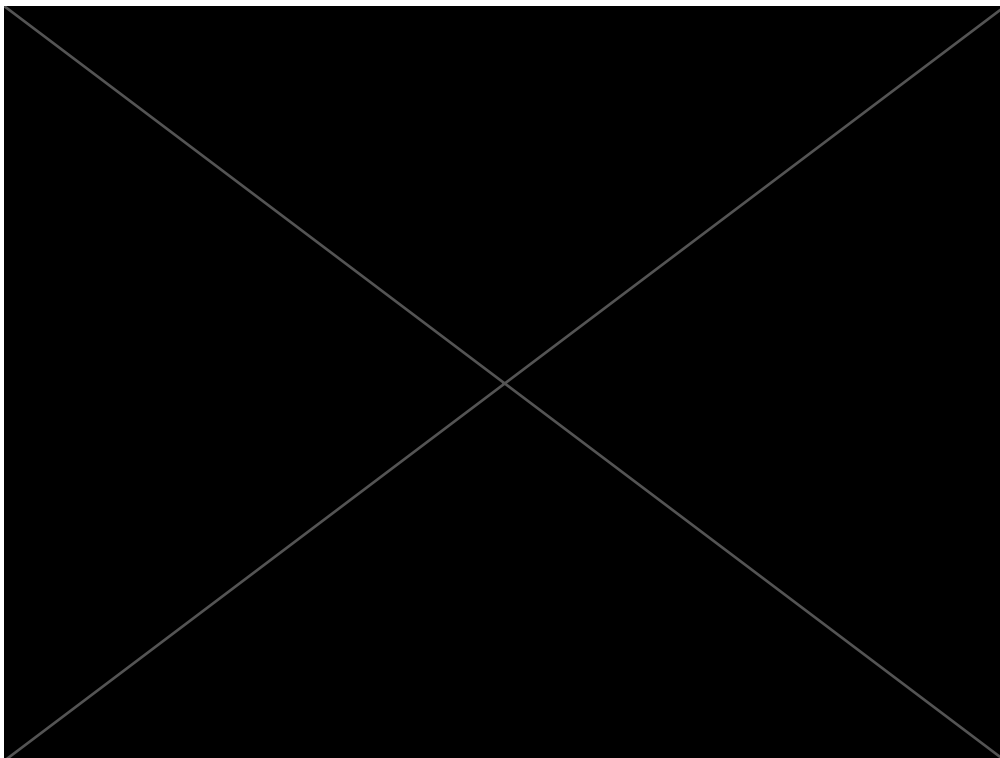

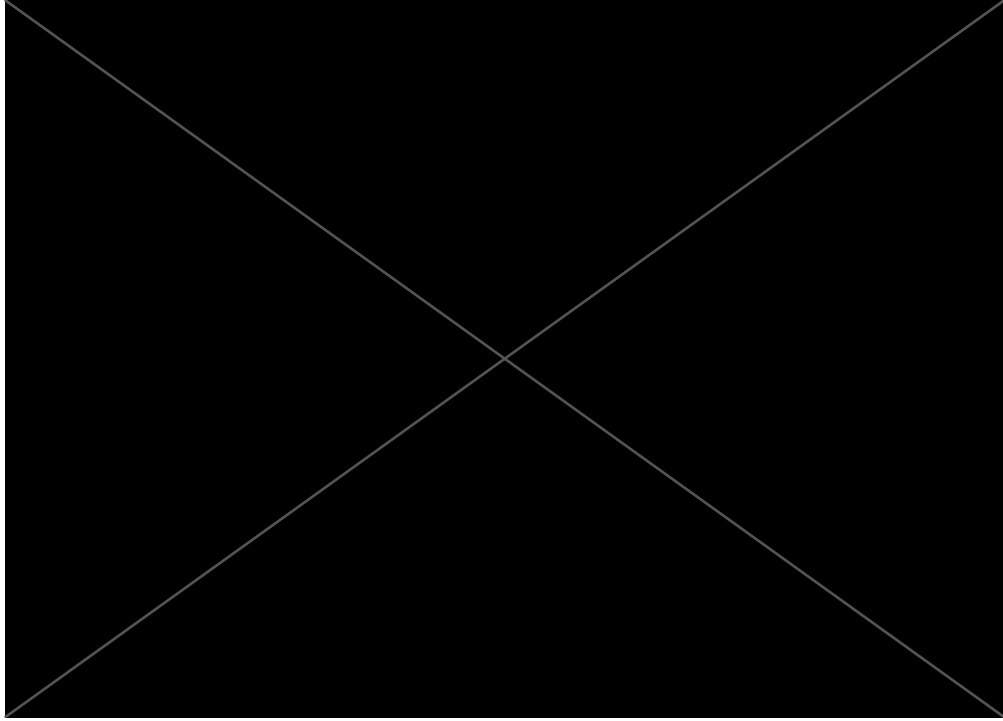
Figure 9: Man Ray, *Emak Bakia*, 16mm film, 1926.

Figure 10: David Smith, *Aerial Construction*, 1936, iron and paint, 10 x 30 7/8 x 11 1/2 in. Hirschhorn Museum and Sculpture Garden.
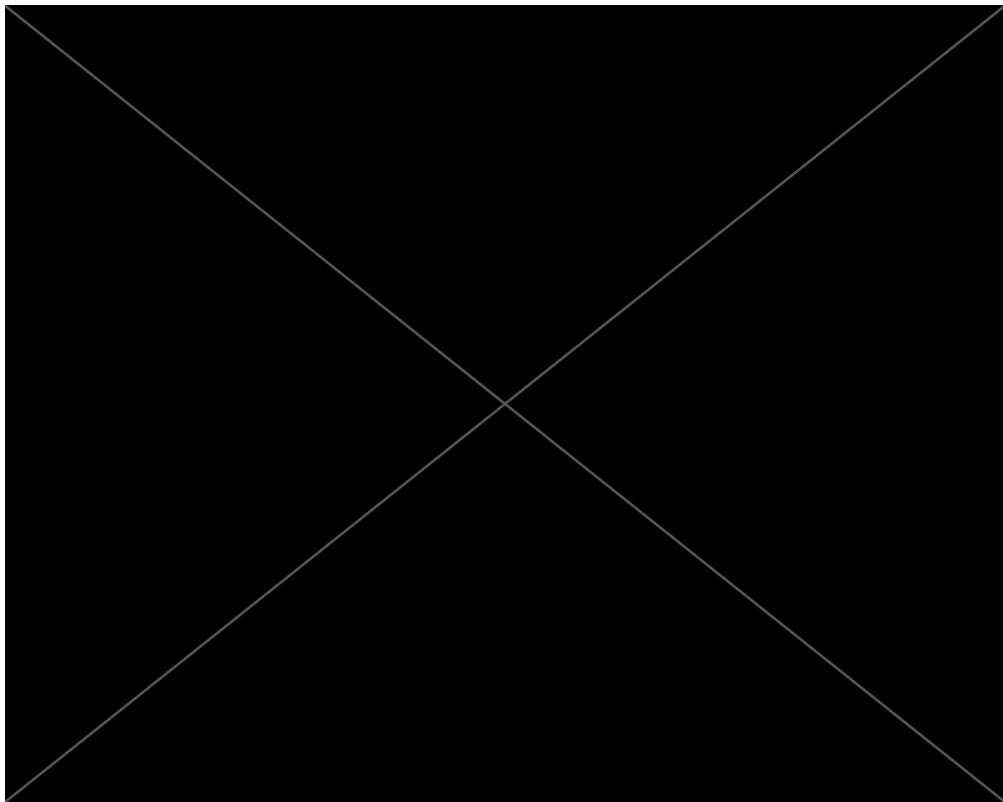

Figure 11: David Smith with *Cubi IX* (1961) and *Two Circle Sentinel* (1961), Bolton Landing, NY, c. 1961. Photograph by David Smith.

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