TIME CRYSTALS
(FILM, DEEP TIME AND GEOLOGICAL STRATA)

Éline Grignard
The movieola becomes a “time machine” that transforms trucks into dinosaurs.
Robert Smithson, “Spiral Jetty” (1972)

“A FILM IS A SPIRAL MADE UP OF FRAMES”2: SPIRAL JETTY (1970) BY ROBERT SMITHSON

Spring 1970, Great Salt Lake, Utah.
A sun. Or maybe a burn. Incandescent is the opening image of Robert Smithson’s film Spiral Jetty (1970). Filmed in 16mm for the six days needed to complete the project of a spiral jetty, major earthwork in American Land Art, the film offers a projecting surface or reflecting mirror to the sculpture in situ, near Rozel Point, on the banks of Utah’s Great Salt Lake. Fig. 1 → Robert Smithson, Spiral Jetty (1970) The film, in the margins of the documentary vocation of images, opens a breach through which spatio-temporal fiction interferes: “a film whose subject is a sculpture, while a text takes hold of two forms—film and sculpture—simultaneously—in associating two genres—description and fiction.”3 Spiral Jetty plays out like a triptych—between “site” and “non-site”4—whose material, visual and textual modalities fight amongst themselves. Like concentric circles designating at their intersection, the place of the spiral itself, the project consists first of all of a sculpture, then of a text written in the “I-voice,” which documents both the voyage and the project and finally, a film which leads documentation beyond itself toward a contemplation of duration through images in movement and the motif of the spiral. The seminal image of the sun also burns throughout the film, evoking, in the distance, the Icarian dream. In the image, time is working. It is over the deafening noise of a clock that Robert Smithson’s voice over imposes itself. Then after a few minutes traversing the dusty roads of Utah, the nagging rhythm of a metronome takes over. In his text entitled “Spiral Jetty” (1972), the artist describes the strangely colored lunar landscape that he discovered surrounding the lake:

The roads on the map became a net of dashes, while in the far distance the Salt Lake existed as an interrupted silver band. Hills took on the appearance of melting solids, and glowed under amber light. We followed roads that glided away into dead ends. Sandy slopes turned into viscous masses of perception. Slowly, we drew near to the lake, which resembled an impassive faint violet sheet held captive in a stoney matrix, upon which the sun poured down its crushing light. An expanse of salt flats bordered the lake, and

Translated by Amanda Murphy.

2 Ibid., 148.
caught in its sediments were countless bits of wreckage. Old piers were left high and dry. The mere sight of the trapped fragments of junk and waste transported one into a world of modern prehistory. The products of a Devonian industry, the remains of a Silurian technology, all the machines of the Upper Carboniferous Period were lost in those expansive deposits of sand and mud.5

Smithson, with a laconic tone, describes the mineral qualities of the ground that make up the site near Rozel Point: “a peninsula of tertiary rocks oriented toward the south on the north bank of Great Salt Lake.” Basalt stones; irregular stratum of grey-beige limestone. The editing alternates images in which machines—compared to dinosaurs6 silently inhabiting the rooms of New York’s Museum of Natural History—discharge tons of black basalt with close up shots of the lake’s crimson water. Fig. 2 → Robert Smithson, Spiral Jetty (1970) The algae (Archea Halobacterium and Halococcus) that dye the water pink bring out the gravely hues of the ground. Soon, helicopter blades are reflected on the surface of the lake, the whishing of air little by little drowns out the noises of harrowing trucks and bulldozers. The camera taken on board is lifted into the sky and turns in a spiral over the site intensifying the trajectory of the jetty. The double movement, both helicoidal and ascending produces a kind of vertigo. Fig. 3, 4 → Robert Smithson, Spiral Jetty (1970) At the zenith, a gigantic flower, nearly 500 meters long and 5 meters wide, unfolds on the surface of the lake: “its ornamental uselessness prefigured its future inertia, all the while exhibiting the heroic gesture of its gratuity.”7 Spiral Jetty escapes the notion of expenditure, associated with entropy,8 an idea that Smithson discovered in consulting geology and anthropology books. As opposed to Lavoisier’s “fluid caloric” theory, elaborated in the middle of the 19th century, the hypothesis of which is based on heat conservation, entropy postulates on the contrary, a certain waste of energy, in pure loss. Fig. 5 → Robert Smithson, Spiral Jetty (1970) The thermodynamism of the notion of entropy introduces a dialectical game between stasis and movement that disrupts the physical forces present. Entropy, in Smithson’s writings, is fundamentally linked to the question of time through a paradoxical formulation that characterizes inertia, solidification, as well as crystallization: As a negation of time, entropy characterizes immobility. But it serves Smithson especially well to designate the objectivation that stabilizes the “fraction,” the infinitesimal “sequence” during which the past and the future surge into the present. We are close here to the

6 Ibid., 150.
theory of black holes, which explains how
certain stars collapse into themselves, and
which is in part linked to thermodynamics.9

Smithson’s crystalline spiral materializes, in a way,
entropic movement, prolonged by the unproductive
aspect of the film. In “Acinema” (1973), Jean-François
Lyotard distinguishes productive movement in cinema
from its opposite, sterile movement, which is executed
for the beauty of the gesture. When we light a match,
the heat and energy emitted are at the service of
capitalist and utilitarian consumption of expenditure:
“If you use a match to light the gas that heats the
water for the coffee which keeps you alert on your
way to work, the consumption is not sterile, for it
is a movement belonging to the circuit of capital
[...] But when a child strikes the matchhead to see
what happens—just for the fun of it—he enjoys
the movement itself, the changing colors, the
light flashing at the height of the blaze, the death
of the tiny piece of wood, the hissing of the tiny
flame. He enjoys these sterile differences leading
nowhere, these uncompensated losses; what
the physicist calls the dissipation of energy.”10

The regime of unproductive expenditure intersects in this
way a conception of images whose movement owes nothing
to capitalist consumption, but on the contrary, embraces
loss; an unmotivated movement, for nothing, just like
that. A sterile movement through which loss is enjoyed as
if the principle of loss were in some way inherently linked
to enjoyment. Taking pleasure in the sight of a match
burning like a pyrotechnics spectacle setting the sky on
fire—that is experiencing expenditure. From this tension, we
can consider two polarities of cinema, through immobility
and the excess of movement. From the sun to a match,
burning in pure loss, everything is a matter of scale.

The scale of the spiral itself is subject to variations in
function of the perspective of the viewer. If size determines
the object, it is the notion of scale, at the heart of
Smithson’s approach that compels the artistic gesture:
“For me scale operates by uncertainty. To be in the
scale of the Spiral Jetty is to be out of it. On eye
level, the tail leads one into an undifferentiated
state of matter. One’s downward gaze pitches
from side to side, picking out random depositions
of salt crystals on the inner and outer edges, while

9 Gilles A. Tiberghien,
Land Art (Paris: Carré, 1993),
151. Our translation.
10 Jean-François Lyotard,
“Acinema,” in Narrative,
Apparatus, Ideology.
A Theory Film Reader, ed. Philip
Rosen (New York: Columbia
University Press, 1986), 351.
the entire mass echoes the irregular horizons. And each cubic salt crystal echoes the Spiral Jetty in terms of the crystal’s molecular lattice. Growth in a crystal advances around a dislocation point, in the manner of a screw. The Spiral Jetty could be considered one layer within the spiraling crystal lattice, magnified trillions of times.”

If Spiral Jetty received much critical attention, here we are seeking to put forth a reflection on geological temporality’s ability to stand the test of the filmic medium. For Smithson, the passing of the celluloid filmstrip resembles the crystalline growth of the spiral. In other words, the movement of images molds to the spiral trajectory of the phenomenon of crystallization. The masses of crystallized salt become, in a way, material witnesses to long duration: “the dislocations created clockwise spirals, then counterclockwise spirals,” as Smithson suggests in his voiceover. Fig. 6, 7

Describing the symptoms of insolation, Smithson leads us to penetrate the luminous halo of these thousands of suns that generate the site of a pink light, like a chromatic echo to the purple colored lake. Water, salt, earth, wind: all the elements form an alchemical equation that Smithson’s film grasps hold of in an almost mystical way. Colored circles of diffracted light form just as many spirals that break away from the sun, that burn the retina and gleam like a kaleidoscope. Evoking the oddly shaped colored stains that appear on the retina during ophthalmic migraines, the film leads us to a singular experience of vision and of duration.

Smithson’s text first presents itself as a travel notebook, in which he evokes the birth of the project and his fascination for arid landscapes and salt lakes. The figure of the pioneer implicitly emerges, he who strides across the great American West. Smithson is not a gold-digger, but a crystal-digger. Utah becomes a projection space, whose unstable limits he maps out—as if in an imaginary geography folding and unfolding, according to the spatio-temporal coordinates that the artist takes pleasure in unsettling. “Et in Utah ego”:


Smithson is interested in the phenomenon of crystallization in saltwater. The artist’s initial project focused on the jetty’s becoming-crystal, over time, in “long time.” Spiral Jetty interlocks different scales, both geographical and temporal, linked to the phenomenon of crystallization: the sculpture in situ incorporates saline concretions found on site as well as the spiral form itself, reminiscent of crystalline growth. The rising water that submerges the jetty during the variably long periods contributes to the modifications of the landscape in time. While the lake’s water level was particularly low in the spring of 1970, the spiral would later disappear—submerged like Atlantis—for nearly 30 years, contributing, as such, to the foundation of its myth. It reappeared after an earth-moving project to dyke the rising water, flecked with new crystals, formed by immersion in the saltwater. As Jean-Michel Durafour highlights, Spiral Jetty “testifies to the new telluric strengths of man in the age of Anthropocene and of terraformation, several decades before these subjects emerge in scientific, ecological or philosophical discourse.”

Robert Smithson develops a conception of “long time” that molds to the contours of geological strata, functioning by sedimentation. Geology concerns the question of time just as much as it does the materiality of the objects itself, through the study of fossils, materials, soils. Geological time becomes concrete in the material, which transcends human presence. In crystallization, fossilization or sedimentation, it is indeed the surpassing of human time—what precedes it and what exceeds it—that interests Smithson. The abstract time of long duration, which extends over millions of years, compels the artistic gesture toward a decentering of the human, a change in cosmic scale: “indifferent to the human scale, geology assigns set limits to man; but it would procure at the same time the material of tragedy, which it needs to nourish its fictions and to not succumb to vertigo.” If human presence can be erased, nonetheless leaving traces, the artist works

14 Ibid., 143.
15 Jean-Michel Durafour, Cinéma et cristaux, Traité d'éconologie (Milan: Mimésis, 2018) 69.
16 Ibid., 64.
with the biological metaphor of the landscape, showing to what extent the chemical composition of human blood resembles that of primitive seas: “Following the spiral steps we return to our origins, back to some pulpy protoplasm, a floating eye adrift in an antediluvian ocean.”  

It is an alternative conception of the “long time” of art history that Robert Smithson invites us to contemplate, in deconstructing chronology founded on a certain idea of progress. Consequently, in changing temporal paradigms, Smithson takes us from garden to site, as Maria Stavrinaki advances: “Quintessence of domesticated nature and archetype of Judeo-Christian eschatology in the form of Eden, the garden, with Smithson, is absorbed into the geological site. Former mines, quarries, geological profiles, urban margins where nature recovers the ephemeral constructions of men: such are the sites on which he will exercise his dialectic of human history and the erosive power of time.”

Time infuses objects and space, digging faults through which sedimentary layers appear. In a text entitled “Strata, A Geophotographic Fiction,” the artist reads quotes extracted—like precious minerals—from geology textbooks that he had collected, and accumulates references and reproductions of enlarged fossils in a photo-literary montage that materially incarnates the concept of the stratification of thought. Taking a stance against the rational and linear conception of historical time, Smithson favors a duration that knocks spatio-temporal references off their axles, and that points toward the temporal plasticity found in science-fiction. From this point, we understand that Spiral Jetty allows us to imagine art history in a way opposite to the Greenbergian conception of the specificity of medium. Conversely, the time of the work is not closed or determined by an instant t: forms evolve in movement and in malleable duration which Smithson borrows from George Kubler’s seminal work entitled Formes du temps (1962). For Kubler, the work of art is part of a whole, understood to be part of a discontinuous, fragmented and infinite time. Consequently, the time of art history is not linear, that of the arrow aimed at a horizon, but that of sedimentary duration, according to which past time and future time are conceived of together, as part of a dialogue between old and new. In this decompartmentalized approach that refuses periodization, it is a matter of nothing more, for Smithson, than offering time travel: “Kubler is to art history what George Wells is to science-fiction: he allows for free travel in time, exploration of prehistory, as well as of distant futures.”
In the editing room, meters of film, reels, a moviola. The question of time is resolved, in the end, at the editing table. Smithson turns editing into the action of a paleontologist, manipulating the film strip with the grace of a Neanderthal eviscerating a mammoth, according to the comparison made by the artist:

“And the movie editor, bending over such a chaos of ‘takes’ resembles a paleontologist sorting out glimpses of a world not yet together, a land that has yet to come to completion, a span of time unfinished, a spaceless limbo on some spiral reels. Film strips hung from the cutter’s rack, bits and pieces of Utah, out-takes overexposed and underexposed, masses of impenetrable material. The sun, the spiral, the salt buried in lengths of footage. Everything about movies and moviemaking is archaic and crude. One is transported by this Archeozoic medium into the earliest known geological eras.”

The gesture of editing authorizes all forms of temporal porosity, a promiscuity between incommensurable times which, suddenly, find a point of conjunction. Fig. 8 ➔ Robert Smithson, *Spiral Jetty* (1970) With the film, space-time is no longer orthonormed: X and Y axes cease to produce benchmarks. Smithson establishes a new spatio-temporal map on which the present coexists with its pre-history. Time, Balkanic, is an archipelago of the past, present and future which actualizes itself in the film through the gesture of editing: “I found an oval map of such a double world. The continents of the Jurassic Period merged with continents of today.”

Just as editing reminds us of paleontology, Smithson turns the spectator into a speleologist, a caveman. In his text entitled “A Cinematic Atopia” (1971), Smithson evokes the conditions of the spectator’s perception, in the standard cinematographic dispositif, which creates a singular experience in projecting light on a screen. One of Smithson’s aborted projects consisted precisely in building a movie theater in a cave:

“What I would like to do is build a cinema in a cave or an abandoned mine, and film the process of its construction. That film would be the only film shown in the cave. The projection booth would be made out of crude timbers, the screen carved out of a rock wall and painted white, the seats could be boulders. It would be a truly ‘underground’ cinema.”


24 Ibid., 151.

The atopic world of cinema is not only an “other space,” to borrow Michel Foucault’s expression, but it is also a polychronic space that combines past and future in a perpetual hic et nunc. If it is true that a “film is a spiral made up of frames,” Spiral Jetty is a spatio-temporal vortex incessantly wavering between fiction and document, between pre-historic past and the virtuality of science-fiction. Sometimes compared to Chris Marker’s La Jetée, Robert Smithson’s film leads the spectator off course into the crystal of time: without a doubt, the sine curve of the spiral is none other than a temporal passageway...

TOWARDS AN ECOLOGY OF THE GAZE: CASTING A GLANCE (2007) BY JAMES BENNING

Travel and time constitute the two terms of an equation for the unknown, and the driving elements of the cinema of James Benning. Filmmaker of the imperceptible, tied to an eco-aesthetic, his perceptive gaze, extremely acute, is of the infra-thin. Heir to American structural cinema and a major figure in the independent cinema of the 1970s, James Benning approaches the filmic medium in terms of time: the length of a 16mm reel, the time needed for a train to pass through the frame, or for a cigarette to burn out. In Casting a Glance (2007), the filmmaker pays homage to the titular figure of Robert Smithson in filming Spiral Jetty on 16 occasions between 2005 and 2007. Presented for the first time in 2007, during “Documenta 12” in Kassel, Germany, Casting a Glance offers something more than a succession of fixed shots of the jetty: the structure of the film is laid out in 80 approximately 1-minute shots, distributed among 16 sequences, each corresponding to a specific date (1970-2007). Benning calls for a gaze punctuated around the years and prolongs Smithson’s inaugural gesture in filming the temporal avatars of the spiral, scrutinizing the infinitesimal variations in the landscape. The water level of the lake allows for fictitious backdating: Casting a Glance offers a chronology reconstituted of the different evolutions of the jetty between spring 1970—when Smithson’s project was created—and 2007. As such, the lake’s rising water becomes a barometer allowing for the measurement of time and to build bridges between time periods. Casting a Glance updates the intention of Smith, who had anticipated the cycles of the spiral in function of meteorological factors (water level, saline levels, precipitation, drought and evaporation). Starting from the idea that it is impossible to understand the nuances and complexities of the jetty in a single visit, James Benning regularly made the trip to Rozel Point, as if carrying...
out a sort of ritual or pilgrimage. Fig. 9 ➔ James Benning, *Casting a glance* (2007) The experience of the landscape and of its evolutions makes *Spiral Jetty* a place to which we can inexorably return: “The Jetty is a barometer for both daily and yearly cycles. From morning to night its allusive, shifting appearance (radical or subtle) may be the result of a passing weather system or simply the changing angle of the sun. The yearly seasonal shifts and water level changes alter the growing salt crystals, the amount of algae in the water, and the presence of wildlife. The water may appear blue, red, purple, green, brown, silver or gold. The sounds may come from a navy jet, wildlife, splashing water, a distant car radio, converging thunderstorms; or be a silence so still you can hear the blood moving though the veins in your ears.”

Each time, the ritual is the same. James Benning leaves Los Angeles in the wee hours, drives 12 hours on the Californian roads before arriving in the state of Utah, which he considers to be one of the most beautiful places in the world. Not only do James Benning’s films possess a quality gaze, but they also pose problems, which do not always have answers. Repetition, variation and declination are all *modus operandi* implying an experience of duration: “Out in the middle of a Western landscape, where nobody’s around, there seems to be some answer, a feeling of getting back to something that’s much more real than what we generally experience. [...] I think maybe that’s what it is: a search for an answer out there, where every moment is different from the moment before. Landscape is always changing in very subtle ways and sometimes in very dramatic ways, but is has to be experienced.”

He rises the next morning around 4 a.m. in order to arrive in Rozel Point at dawn, after an hour and a half journey on the same dusty roads that Smithson filmed in 1970. James Benning tells of the first time he went to Rozel Point, in search of the spiral. Submerged by water, it was invisible to the eye, but he managed to locate it. He embarked on a long trek in order to travel along the spiral to its center. The kaleidoscopic experience, close to the effects of insolation that Smithson describes in his film, echoes here with Benning’s recount: “I suppose in a way my trip ended there at the end of the spiral. I stared into space. A kind of dizziness overtook my body. I was hot and dehydrated. I had no water. I thought about the secrets of survival

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33 Ibid.
that were shared by the desert life around me. For a brief moment I thought this to be the end, that I would quietly succumb to my desolation.”

Since, the filmmaker has made 16 other trips to film the spiral, which make up the different sections of the calendrical structure of the film. The dates were not chosen by chance, whether it be the anniversary of Smithson’s accidental death or the birth of his daughter Sadie Benning in 1973. To apprehend the spiral, in a kind of procedure that circumvents the site through an oblique gaze, he multiplies perspectives from the bank and varies the scales of the shots. Fig. 10 James Benning, Casting a glance (2007) Contrary to Smithson’s Spiral Jetty and to his zenithal non-human gaze, Casting a Glance does not call upon complex camera movements, nor on a voiceover or other editing devices. With his 16mm Bolex and his Nagra, James Benning establishes a structural protocol that relies on a few minimal operations: casting a glance, capturing duration, simultaneously recording the sound. The film gives a full account of the thickness of time, recreates the impossible chronology of a work that incessantly flees our gaze and reinvents its appearance. Like the impressionists, James Benning is interested in diluting landscapes in light, the changing reflections in the water, the crystalline growth on the salt-covered rocks, the sonorous atmosphere that emerges from the place. When asked about his relationship to the work of Robert Smithson, he replies:

“He’s interested in these grand schemes of geological time—my films don’t deal with such large time scales, but I think about time because he thought about great distances of time. [...] I made a film that his film begs for, which pays attention to the Jetty over time. It addresses history back to dinosaurs, but doesn’t deal with what happens afterwards. I thought maybe mine could serve as an appendix, with a sense of the rhythms that the Jetty becomes a barometer for, to measure the lake, to measure the algae…”

Sometimes, changes in weather, similar to the catastrophe to which Smithson alluded, would disrupt the meteorological parameters of the lake in a few hours. Casting a Glance presents a wild non-human space: “All the arts are based on the presence of man, only photography derives an advantage from his absence,” wrote André Bazin in What is cinema? Here James Bennning offers the spectator a frame of perception that focuses our attention on micro-events: the flow of water, the noises of birds, the fine ripples
“IT LITERALLY SEES TIME”
JG (2013) BY TACITA DEAN

JG are the initials of the British science-fiction writer James Graham Ballard. Robert Smithson was a great reader of futuristic stories, in particular those of J.G. Ballard and Brian Aldiss: like a paradoxical injunction, the acceleration of time and the technological evolutions of science produced an alternative to the sedimentation of geological duration. In JG (2013), the British filmmaker Tacita Dean performed a visual syncopation in linking the structure of J.G. Ballard’s novel The Voices of Time (1960) and that of Smithson’s Spiral Jetty. While maintaining correspondence with the writer on this subject, Tacita Dean realized to what extent Ballard and Smithson share the same preoccupations with temporality, which is the conceptual backbone of their respective works. If Ballard’s The Voices of Time tells of the loss of temporal bearings (a virus progressively increases the amount of time affected individuals sleep), Spiral Jetty deploys, on the contrary, a way of inscribing space into its own duration. Like marquetry in situ and on the ground itself, Smithson literally inlays the spiral into the landscape and thereby chisels time. The clock, a leitmotiv that structures both Ballard’s novel and Tacita Dean’s film, is also present in the soundtrack of Spiral Jetty. The question of time is also ever-present in the work of Tacita Dean: whether it be in the length of the films themselves which test spectators’ patience and attention, or the embedding of temporal scales (macro/micro). Fig. 11 Tacita Dean, JG (2013) At the end of Ballard’s novel, the hero takes on the construction of a giant mandala at the bottom of a dried-up lake which, like a clock with cosmic dimensions, might allow for the keeping count of time. The proximity between Smithson’s spiral and the power to fascinate of this cosmic clock which makes itself present on several occasions in The Voices of Time is quite significant. We now know that Robert Smithson possessed a copy in his library.

Like many artists of her generation, Tacita Dean admits a certain fascination for Smithson’s jetty. In 1997, when she learned from the radio that the spiral had reappeared after years of submersion, she decided to make the journey to

37 “I have a very simple definition of an artist: The artist is someone who pays attention and reports back” in Scott MacDonald, “Testing Your Patience,” Artforum (September 2007), 435.

Trying to find the spiral jetty (1997) is a sound piece documenting Tacita Dean’s trip with her friend—who was not aware of the purpose of the trip—to Rozel Point in search of the spiral. In following the imprecise directions provided by the Utah Arts Council, Tacita Dean traverses the great spaces of the American West in search of a mirage, since the spiral remained submerged in the dormant waters of the saltwater lake. Though she never considered making a work out of this material, Tacita Dean ended up creating a sound montage that oscillates between document and fiction to turn the situation around and retain a trace of this disappointing search.

Several years later, Tacita Dean would return to the banks of Great Salt Lake. This time, the water level was considerably lower, revealing the spiral for the first time to the eyes of the artist. Curated by the Arcadia University Art Gallery, with the support of the Pew Center for Arts & Heritage, JG crystallizes Tacita Dean’s different orientations surrounding the obsolescence of the filmic medium, the forms of temporal coalescence and the framework of the spectator’s perception. The correspondence she maintains with J.G. Ballard makes up the sub-text of the film, a filter that never literally appears in the images, but that is present implicitly. In a letter from Ballard addressed to Tacita Dean, an injunctive sentence echoes with the film’s project: “Treat it [Spiral Jetty] as a mystery that your film will solve.”

Played over and over in the basement of the Marian Goodman Gallery in Paris in 2014, JG was presented with a group of works that communicate with each other: a group of 14 photographs taken from the film, objects covered in salt crystals brought back from her trip to the landscapes of the Californian salt lakes and an engraving of monumental dimensions in ten parts entitled Quaternary that represents an imaginary salty rock space.

While James Benning was hinging the image of the spiral on his own cinematographic language based on structural cinema, Tacita Dean was developing a singular technique for formalizing her own obsession, that of the mask and its colored filters. In working with 35mm film, it was a matter of reconnecting with the manual and artisanal dimension of the medium. Cutting out forms in the celluloid, the filmmaker produced a technique for double exposure reminiscent of the use of the stencil and revisited, as such, the material history of cinema. Tested for the monumental project FILM (2011) and projected in the Turbine Hall of the Tate Modern in London, the technique consists in covering part of the shutter with pre-cut forms that act as masks. A circle, a spiral,
35mm film perforations and other cut-out geometric forms on the image produce kaleidoscopic effects that reconnect, in a way, with Smithson’s voiceover describing the symptoms of insulation in *Spiral Jetty*. Fig. 12 Tacita Dean, *JG* (2013) Taken throughout her trip at different natural sites in Utah, the film’s images echo Smithson’s jetty, through the motif of time and the spiral, as well as Ballard’s futuristic stories: “The two works have an analog heart, not only because they were created or written at a time when filming in 35mm was the means for recording and transmitting images and sounds, but because their helicoidal form is analogous to time itself.”

Tacita Dean, in an alchemical process of fusion between landscape and time, reworks the metaphor of the film as a spiral. *JG* constitutes a visual and anachronical prolonging of the sound piece *Trying to find the spiral jetty*. In this way, it functions as a meta-film—like an investigation—that questions, to a new extent, the terms of the equation between past, present and future times. Highlighting the artist’s tendency toward collection and her nostalgic inclination, Érik Bullot wrote: “Tacita Dean’s wealth of artistic proposals stems from the dialectical and mythological entanglement of the motifs. The fragile quest for traces and documents, the use of obsolete techniques and concern for genealogy are part of a same paradoxical gesture of resurrection and erasure.”

In her vision of *JG*, we can untangle the lines of an obscure genealogy on the verge of mystery and of which the symbol could be the crystal. In 1966, in “The Crystal Land,” Smithson described an excursion into the ore quarries of New Jersey with his wife Nancy Holt and his friend Donald Judd, with whom he shared a kind of fascination for minerals and crystallography. It is surely not by any stroke of chance that, the same year, J.G. Ballard published *The Crystal World*, which tells of the progressive crystallization of the world under the effect of fleeting time. Tacita Dean’s intuition is located precisely at the intersection of the two temporal forms of the crystal and the spiral, which she formally re-arranges in her own film. The clock appears five times, punctuating the images taken on the shores of Great Salt Lake and in Southern California. The anamorphic format of the projection allows the filmmaker to split the screen in a tryptic dynamic, alternating the shots of salt crystals, ground-digging machines, waves on the surface of the water, the flora and fauna of the natural environment.

Fig. 13, 14 Tacita Dean, *JG* (2013) With her own formal principles and the meta-critical distance necessary, Tacita Dean condenses in *JG* a vision of time apprehended through the spiral growth of the crystal. When shots of geological cross-sections...
FROM "BODILY FREQUENCIES TO THE ORCHESTRA OF THE UNIVERSE" 42:

ALTIPLANO (2018) BY MALENA SZLAM

At the border between Chile, Argentina, and Bolivia, in the heights of the Andean Cordillera, the Altiplano spreads from the extremely arid region of Atacama, the mountainous peaks of volcanic ground, to the salt deserts, vestiges of the evaporation of thousand-year-old lakes. It is in these vertiginous, almost extra-terrestrial looking landscapes that Malena Szlam decided to make her last film, ALTIPLANO (2018).

We must for a moment turn away from the hypnotic spiral, to better come back to it. For, indeed, if we have left California, we nonetheless find the same attention paid to the inscription of time in space, or, to put it another way, the experience of landscape in the material concretions of time. This initial gesture of Smithson, appropriated by James Benning and Tacita Dean, each in a singular way, finds a new plastic formulation in the experimental work of the Chilean filmmaker. Without explicitly mentioning the earthwork of Smithson, the specter of the spiral envelops the film in its aura. It is as if Malena Szlam were updating the artist’s initial obsession with the assets, deployed in their full scope, of the filmic medium. Again, the artist invites the spectator to travel in time, through the superimposition of textured lichen, the time-lapse images of the orbital trajectory of the moon and the sun, and the flicker effects that animate mountains with a life of their own, causing the horizon to ripple and the flora to twinkle with startling intensity.

Filmed with 16mm film, of which the thick texture dilutes the edges and softens the chromatic qualities of the medium. Again, no trace of human presence can be found. The changing reflections in the sky seem to respond not to a linear time, but to a cyclical one, whose curves mimic the circuit of the planets. In the irregular alternance of day and night, like a far away echo of her previous film Lunar Almanac (2013), Malena Szlam lets us approach the geological appear showing crystalline formations of saline rocks, the disembodied narrator furtively states: "It literally sees time."
strata of the land in the layers of photosensitive emulsion. The camera functions here as a clocklike mechanism, disrupting all temporal parameters in favor of a psycho-material experience of duration. No need for bulldozers or helicopters, through the combined force of the object, the shutter and photosensitivity, Malena Szlam manages to disturb cosmological and gravitational order through the use of formal processes: long exposure, multiple exposures, pixelization, shot-edited, flicker effects, inversion and chromatic saturation. The waters of salt lakes, the deep red and azure blue, combine with the shades of the sky, the desiccation of the ground and the slices of the terrain. Both shaman and geometer, Malena Szlam treats the multi-layered frame like an offering to the gaze: the seismic tremors of the volcanic earth can surely produce ocular spasms of a rare intensity. Just as generous as the visual composition, the soundscape of ALTIPLANO mixes whale vocalization with the infrasound of volcanoes. Accompanied by several collaborators for sound collection, Malena Szlam records the foliage of plants, the crackling of the earth, the wind’s caress and potentially the whole universe in gestation. The films of Malena Szlam depend on a fragile equilibrium between mastery and chance, as Jasmine Pisapia points out:

“Her dream-like filmic collages depend on organic and technical processes that exceed her control. Impelled by their ‘psychophysical’ and ‘psychochemical’ composition, Szlam’s films rely on the serendipity of photochemical processes and the beauty of mechanical accidents.”

Malena Szlam’s visual finds owe as much to the technical mastery of the apparatuses as to radical experimentation, which leads technique beyond its standard usage. In the genealogical perspective that takes shape here, the use of film (16mm or 35mm) is an invariable in her work that feeds the question of long duration. One of the most eloquent aspects surrounding this dialectic of the creative accident concerns the method of “in-camera editing”:

“Often using a ‘blind’ editing process, in which she stopped, started, and rewound her camera after every frame, Szlam didn’t see the effects of her multiple exposures until postproduction. In the end she used twelve rolls of 16mm film—nearly three minutes each at twenty-four frames per second—which she arduously edited into a fifteen-minute reel, finalized and added sound to in digital post-production, and then transferred to the more magisterial 35mm format.”
The obsolescence of the filmic medium fortifies human invisibility, providing a glimpse of the possibility of a world without man. However, _ALTIPLANO_ does not actually offer a non-human point of view, like we could detect in _Spiral Jetty_: Malena Szlam often films at human height, as if to suggest the trace of a subjectivity which leaves us unsure as to whether it should be conjugated in the past, the present or the future. _ALTIPLANO_ testifies to a visual ecology, in the sense that the dynamic tensions of the landscape are redefined by the medium of the film itself. Just as Smithson was attentive to the historical, cultural and geo-morphological complexities of the site of Rozel Point, Malena Szlam manages to situate her discourse, as formal as it may be, in an ecosystem whose precarity is in constant augmentation due to intensive mining extraction practices (especially of salpeter and nitrate). Indeed, the filmmaker establishes a direct connection between the filmic medium and geological time: “It has to do with these rocks and crystals and the shimmering of light on the surface of the Earth, or salt, and this idea of materials changing in time. And being corrosive. There is something about that in this landscape. And just the layers of the earth that you can observe in the mountains, the different minerals, the range of colors on a single rock there is enormous. And it makes me think in terms of the range of colors that also exist on film and which film can really capture.”

As in her previous works, _ALTIPLANO_ questions the sedimented time of geology, making film her preferred medium to capture the variations in landscape, and, for this reason, seems to satisfy the desire for alchemical fusion between elements, celestial and telluric forces, the sun and the moon, the mineral and the vegetable. In surveying the geological lays of the territory, Malena Szlam—like Robert Smithson, James Benning and Tacita Dean before her—is attentive to the sound of time, and to its current and future echoes. Gazing, raising one’s eyes to the sky and maybe, behind one’s eyelids, seeing a spiral unfold.