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AH 196

19 March 2025

The Spiral Jetty: Environmental Degradation in the Contemporary Era

Land art marked a pivotal shift in the experimental art movement, as the disregard for traditional viewing of art signified a pushing absence of the confines of gallery spaces. Artists sought to create works that engaged directly with nature, often in remote locations, using materials like soil, rocks, and water. *The Spiral Jetty* (1970), is one of the most prominent landmarks in land art, created by Robert Smithson in the vast shores of the Great Salt Lakes in Utah. While *Spiral Jetty* (Figure 1) is often celebrated as a masterpiece of Land Art, its environmental impact raises important ethical questions in the contemporary era - as the artwork was created in harmony with nature - yet its continued existence is threatened by environmental changes, including climate fluctuations, human intervention, and ecological shifts.



Figure 1.
Robert Smithson, *Spiral Jetty* (1970)

Land artists sought to reframe the concept of how to illustrate the fragile relationship between humanity and nature. By experimenting with unconventional methods, Robert Smithson applied his ethos and philosophy of entropy - the natural process of decay and transformation over time - to his works. "His own conception of entropy evolved over the years, and is difficult to pin down. In an interview from 1973 Smithson described entropy as a condition that is irreversible and moving towards a gradual equilibrium. Entropy to Smithson also meant decreasing organization and a loss of distinctiveness, often as a result of the clash between uncoordinated orders"¹. *Spiral Jetty* exemplifies this vision by embracing nature's inevitable changes, allowing for environmental forces such as erosion and shifting water levels to shape its form. This was a complete shift from the traditional medium of art, where most works are created with the intention of preservation and permanence. Land art emerged in the late 1960s and 1970s as a response to the commercialization of art and the highly controlled curation of gallery spaces. Artists like Smithson, along with other notable artists such as Nancy Holt (Figure 2), Michael Heizer (Figure 3), and Walter De Maria (Figure 4), moved their work outside traditional institutions and used the earth as their primary canvas, and its resources such as rocks and water as their paint and brushes. This movement redefined the boundaries of art, but placed a heavy emphasis on the fragility of human intervention in the landscape.

¹ Anja Novak, "Broken Circle and Spiral Hill: Having Entropy the Dutch Way," Holt/Smithson Foundation, February 2021, <https://holtsmithsonfoundation.org/broken-circle-and-spiral-hill-having-entropy-dutch-way>.



Figure 2.
Nancy Holt, *Sun Tunnels* (1973)



Figure 3.
Micheal Heizer, *Double Negative* (1969)



Figure 4.
Walter De Maria, *The Lightning Field* (1977)

Landscape has transformed over time, both as a physical space and as a subject in art. The depiction of landscapes in Western art can be traced back to 17th-century Dutch paintings, where artists like Jacob van Ruisdael (Figure 5) portrayed serene detailed scenes that reflected a theme of a growing appreciation for nature ². These works often idealized the land, presenting it as harmonious and ordered, reinforced the ideal of human domination over nature. By the 19th century, Romantic painters such as Caspar David Friedrich (Figure 6) depicted landscapes with heightened emotion and grandeur, painting dramatic skies and sublime - almost spiritual like - encounters between humans and natures. This practice of romanticizing the landscape reinforced the notion of human domination over nature, portraying nature as something to be admired and picturesque. In contrast, Land Art rejected this passive portrayal, by engaging with the earth directly itself. Rather than presenting a picturesque and idealized version of nature, artists like

² Levesque, Catherine. *Jacob van Ruisdael's Ecological Landscapes*. Amsterdam University Press, 2024. <https://doi.org/10.2307/jj.15552475>.

Smithson embraced its raw and unpredictable state. The beginnings of this movement emerged in response to growing environmental crises in the 1960's and 1970's , as rapid industrialization and modernization increasingly threatened natural landscapes. Works such as *Spiral Jetty* reflected a new awareness of environmental degradation, challenging viewers to reconsider their relationship with the land.



Figure 5.
Jacob Van Ruisdael, *Landscape with a Village in the Distance* (1646)

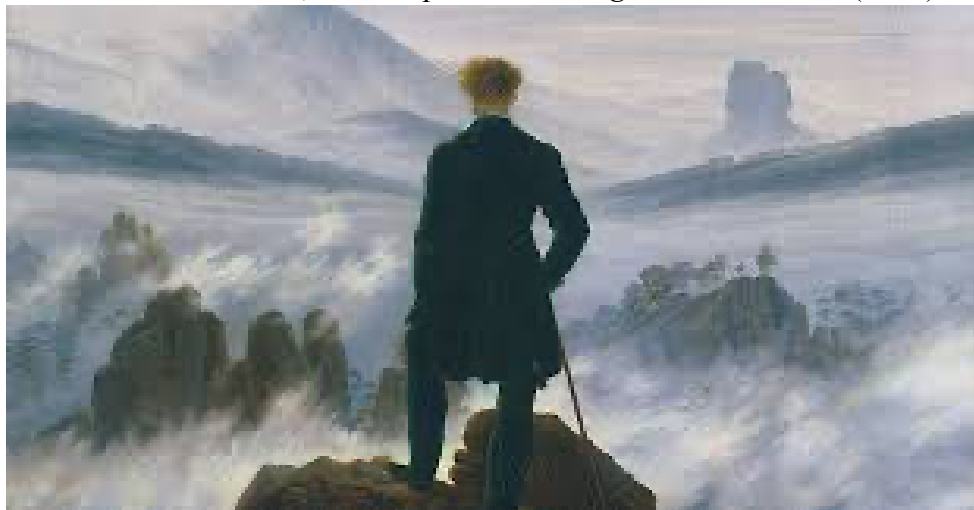


Figure 6.
Caspar David Friedrich, *Wanderer Above the Sea Fog*, (1818)

In 1950, the Anthropocene Working Group proposed an ‘Anthropocene epoch’ which was marked by “rapid population growth, increased fossil fuel use, and other human activities leaving a clear imprint on the planet”³. Smithson’s *Spiral Jetty* embodies these themes through its site-specificity and use of natural materials. The massive spiral is located off Rozel Point in the northern region of the Great Salt Lakes in Utah. “Undoubtedly the most famous large-scale earthwork of the period, it has come to epitomize Land art. Its exceptional art, historical importance, and its unique beauty have drawn visitors and media attention from throughout Utah and around the world”⁴. Rozel Point attracted Smithson due to its remote location and the reddish quality of the water. This was an effect of the high presence of algae in the lake and by using the natural materials from the site, Smithson designed *Spiral Jetty* to extend into the lake several inches above the water line. The Great Salt Lake is one of the largest saltwater lakes in the Western Hemisphere and serves as a vital ecosystem for migratory birds and different species of waterfowl and shorebirds⁵. The lake is known for its high salinity and fluctuating water levels, with salinity levels varying due to evaporation rates and water inflows. In recent decades, the lake has faced significant challenges, driven by human-induced environmental changes - such as water diversion for agriculture and industrial use - has led to a dramatic reduction in the lake’s water levels⁶. “The close communion between *Spiral Jetty* and the super-saline Great Salt

³ "Did the Anthropocene Start in 1950?" University of Technology Sydney. Accessed March 19, 2025. <https://www.uts.edu.au/news/culture-sport/did-anthropocene-start-1950>.

⁴ University of Utah Museum of Fine Arts, "Spiral Jetty," last modified March 19, 2021, <https://umfa.utah.edu/spiral-jetty#:~:text=Rozel%20Point%20attracted%20Smithson%20for,several%20inches%20above%20the%20waterline>.

⁵ U.S. Geological Survey, "Great Salt Lake: Biological Characteristics," last modified February 23, 2021, <https://webapps.usgs.gov/gsl/characteristics/biology.html>. 4o mini

⁶ Ballard Brief, "The Aridification of the Great Salt Lake," last modified April 2022, <https://ballardbrief.byu.edu/issue-briefs/the-aridification-of-the-great-salt-lake#:~:text=The%20initial%20suggested%20range%20for,April%202021%20and%20April%202022>.

Lake emphasizes the entropic processes of erosion and physical disorder with which Smithson was continually fascinated with”⁷.

The construction of *Spiral Jetty* was no easy feat, as it included a long laborious process of man-made and industrial power. Smithson was able to receive funding from the Virginia Dwan Gallery, which played a pivotal role in the development and production of Land art during the 1960's and 1970's. The gallery was founded by Virginia Dwan in 1959, who was a significant figure in the art world, known for her passionate support of avant-garde movements and promoting new innovations among developing artists⁸. Her gallery became a central space for many multidisciplinary artists to safely explore their new artistic practices, including Land Art. Smithson was drawn to the gallery due to Dwan's willingness to embrace his unconventional, large-scale works that defied traditional art-making methods, allowing for his conceptual visions to manifest into reality. Due to the laborious efforts of making *Spiral Jetty*, Smithson was rewarded with a \$9,000 grant from the Virginia Dwan Gallery, which equates to about \$70,000 in 2025⁹. With the grant, Smithson hired a bulldozer, dump trucks and other equipment operated by a local contractor named Bob Phillips¹⁰. “Using over six thousand tons of black basalt rocks and earth from the site, Smithson formed a coil 1,500 feet long and 15 feet

⁷ University of Utah Museum of Fine Arts, "Spiral Jetty," last modified March 19, 2021, <https://umfa.utah.edu/spiral-jetty#:~:text=Rozel%20Point%20attracted%20Smithson%20for,several%20inches%20above%20the%20waterline>.

⁸ Rauschenberg Foundation, "Virginia Dwan," last modified 2021, <https://www.rauschenbergfoundation.org/artist/oral-history/virginia-dwan>.

⁹ American Institute for Economic Research, "Cost of Living Calculator," accessed March 19, 2025, https://aier.org/cost-of-living-calculator/?utm_source=Google%20Ads&utm_medium=Google%20CPC&utm_campaign=COLA&gad_source=1&gclid=Cj0KCQjw1um-BhDtARIsABjU5x6zJmzJRDTeBYLxOI95PgVYlvck5yyZt1oxKk83O4gPCghuVSASY7saApEqEALw_wcB.

¹⁰ American Art Archives, "Archivist on the Road: Spiral Jetty," last modified October 9, 2012, <https://www.aaa.si.edu/blog/2012/10/archivist-on-the-road-spiral-jetty#:~:text=Smithson%20was%20able%20to%20build,local%20contractor%20named%20Bob%20Phillips>.

wide that winds counterclockwise off the shore into the water”¹¹(Figure 7). Due to the large scale size of this project and disruptive energy it would bring to the surrounding natural environment, Smithson needed permission to build the Spiral Jetty, which was ultimately secured through a 20-year lease for the 10 acres of land from the Utah Division of Forestry, Fire and State Lands¹². It is interesting to note that in his application, Smithson stated that the design intent of the jetty is “This project will resemble a jetty in the shape of a spiral. The structure will be made of rock and gravel. The purpose of placing the rock on the mudflat area will be to induce salt crystals on the rock and gravel as incrustations that will develop over a period of time. This will contrast with the red color of the water. Its purpose is purely aesthetic, and it can be viewed from an airplane or the road.”¹³. The fabrication of *Spiral Jetty* was a monumental task, taking several weeks to complete involving strategic planning from multiple disciplines - from engineering and earthworking to conceptual art and environmental science.



¹¹ Dia Art Foundation, "Robert Smithson: Spiral Jetty," accessed March 19, 2025, <https://www.diaart.org/visit/visit-our-locations-sites/robert-smithson-spiral-jetty#:~:text=Robert%20Smithson's%20earthwork%20Spiral%20Jetty,the%20shore%20into%20the%20water.>

¹² Utah Division of Forestry, Fire, and State Lands, "Home," accessed March 19, 2025, <https://ffsl.utah.gov/>.

¹³ Public Delivery, "Robert Smithson: Spiral Jetty, Utah," accessed March 19, 2025, <https://publicdelivery.org/robert-smithson-spiral-jetty-utah/#:~:text=The%20idea%20of%20an%20island,underwent%20until%20nearly%20the%20end.&text=However%2C%20the%20spiral%20was%20always,%2C%20roll%203833%2C%20frame%2090.>

Figure 7.

The most profound concept of *Spiral Jetty* is Smithson's intention of the crystallized spiral to degrade and change over time with the natural evolution of nature, reflecting his fascination with entropy. Smithson conducted extensive research when creating this work, as he researched independently and alongside environmental scientists the history and fluctuating levels of the Great Salt Lake. The primary factor that attracted Smithson to Rozel Point was the blood-red hue of the lake water, which is caused by the algae and bacteria that thrive under the lake's 27% salinity ¹⁴. The reason why this specific region has such a salty environment was due to the Southern Pacific Railroad that was built in the area in 1959, that separated some of the freshwater sources from Rozel point ¹⁵. As time has passed, the effects of receding water levels has become increasingly evident, further transforming *Spiral Jetty* and the surrounding landscape. These climate changes and shifts have been documented on the Holt and Smithson artist foundation website, through a photographic series titled *Dispatch*, which is continuous shared research by Hikmet Loe ¹⁶. It contains 9 progressive images of *Spiral Jetty* developing with the natural environment surrounding it over the span of 50 years. *Dispatch 4* (Figure 8), shows a helicopter view of the spiral, the organic form still being highly visible in the bright blue hue of the lake water. It was taken in November of 1990, and during that time, the Great Salt Lake was 4,203 feet above sea level. In *Dispatch 5* (Figure 9), another birds-eye view of the spiral is documented, but instead of the water being a vibrant blue, it has shifted to a dark muddy-red due to the lake's ever-changing nature of salinity and algae levels. Due to various

¹⁴ Public Delivery, "Robert Smithson: Spiral Jetty, Utah," accessed March 19, 2025, <https://publicdelivery.org/robert-smithson-spiral-jetty-utah/#:~:text=The%20idea%20of%20an%20island,underwent%20until%20nearly%20the%20end.&text=However%2C%20the%20spiral%20was%20always,%2C%20roll%203833%2C%20frame%2090>.

¹⁵ Wikipedia contributors, "Southern Pacific Railroad," Wikipedia, last modified March 19, 2025, https://en.wikipedia.org/wiki/Southern_Pacific_Railroad.

¹⁶ Holtsmithson Foundation, "Changing Climate, Spiral Jetty," last modified 2021, <https://holtsmithsonfoundation.org/changing-climate-spiral-jetty>.

climate crises such as fluctuating water levels and droughts, Rozel point has changed dramatically over time because of rapid industrialization and urban expansion. *Dispatch 7* (Figure 10) shows the north arm's water level of the site dropping to 4.189 feet - five feet below the lake level during construction of the earthwork in 1970 - in December of 2016, completely hiding the whirl from view. The topography of the Great Salt Lakes was a zone of continuous metamorphosis, resulting in the steady breakdown of the *Spiral Jetty*. Depending on the period and seasons of the year, visitors can find the spiral in various states of decay and submersion in the salt water - "which serves as a material index of the passage of time" ¹⁷. The interest in the *Spiral Jetty* remained relatively anti-climatic, as the interest in this land art widened in the 1990's as the global art world regularly wrote about it being the most notable 'Earthwork' there is. As of today, the curiosity for the spiral has only increased, as tourism and heightened foot traffic have brought awareness to the themes of Land Art, but also have contributed to the current day environmental degradation of the spiral. Its accessibility can be challenging for some visitors, as it is located in a remote area and is not wheelchair-accessible, but an elevated view of the sculpture can be provided from the parking area. Visitors must walk a short yet rough terrain from the parking lot to the Jetty, as there are no paved paths available on-site. Taking a reliable car is a must, as the dirt roads provide a rocky journey to the point - and the statement "Leave No Trace" is heavily emphasized and exercised for visitors. This notion is extremely significant, as human activity has historically caused degradation to the surrounding natural environment and various ecosystems. These conversation efforts are further exemplified through the preservation efforts of the Dia Art Foundation.

¹⁷ Public Delivery, "Robert Smithson: Spiral Jetty, Utah," accessed March 19, 2025, <https://publicdelivery.org/robert-smithson-spiral-jetty-utah/#:~:text=The%20idea%20of%20an%20island,underwent%20until%20nearly%20the%20end.&text=However%2C%20the%20spiral%20was%20always,%2C%20roll%203833%2C%20frame%2090>.



Figure 8.
Dispatch 4
Taken Atsushi Fuji in November of 1990
4,203 feet above sea level



Figure 9.
Dispatch 5



Figure 10.
Dispatch 7
 Five feet below lake level

Preserving the site while minimizing human impact requires continuous ongoing efforts in order to maintain the integrity of the *Spiral Jetty* and its surrounding environment. In 1999, through the liberty of Nancy Holt, also Smithson's wife, and the Estate of Robert Smithson, the spiral was donated to the Dia Art Foundation¹⁸. The stewardship of *Spiral Jetty*, is a multidisciplinary effort - just like its creation - and involves the collaboration between the Utah Museum of Fine Arts, Dia Art Foundation, Holt/Smithson Foundation and the Great Salt Lake Institute at Westminster University¹⁹. All these institutions share the same goal to preserve, maintain and advocate for this now acclaimed Utah landmark. Since acquiring the earthwork in

¹⁸ Utah Museum of Fine Arts. "Spiral Jetty." Accessed March 19, 2025.
<https://umfa.utah.edu/spiral-jetty#:~:text=Dia%20leases%20the%20lake%20bed%20where%20Spiral,Division%20of%20Forestry%2C%20Fire%20and%20State%20Lands.4o>

¹⁹ Utah Museum of Fine Arts. "Spiral Jetty." Accessed March 19, 2025.
<https://umfa.utah.edu/spiral-jetty#:~:text=Dia%20leases%20the%20lake%20bed%20where%20Spiral,Division%20of%20Forestry%2C%20Fire%20and%20State%20Lands.4o>

1999, Dia has leased the land the *Spiral Jetty* resides on to the Utah Division of Forestry, Fire, and State Lands. The lease eventually expired in early 2011, which caused the Dia and the Utah Division of FFSL to negotiate a replacement through a noncompetitive process which was signed in December of 2011 ²⁰. At the time Dia acquired the Jetty, the work was fully submerged in the lake, but in the beginning of the early 2000's the spiral became visible due to a sustained drought in Utah causing water levels to recede. The direct result of this was more ecological awareness of climate crises being embodied through the different physical transformations of the *Spiral Jetty* and how to preserve the piece through minimal human contact, while honoring Smithson's artistic statement of letting the Jetty degrade naturally with the environment. The conservation and protection of the spiral has remained largely ambiguous to this day, as Dia is still continuing to research various approaches to its preservation. While some advocate for intervention to slow its deterioration, others believe the 'right' thing to do is to respect Smithson's vision by allowing natural forces to shape its fate. However, these disagreements are pushed to the side when a cultural icon is at risk for destruction by human-power. In January 2008, Nancy Holt frantically sent out an email to her colleagues and friends, as she had just been alerted the day before of the existence of plans to drill for oil in the Great Salt Lake, near the *Spiral Jetty* ²¹. The exploratory oil drilling was going to be approximately five miles from the jetty, calling for a series of wells to be sunk 3,000 feet into the lake bed in the Rozel Point region. Not only was the *Spiral Jetty* at risk, but Gunnison Island was too - a wildlife sanctuary that homes one of the world's largest breeding populations of American white pelicans. By mid-February, more than 3,5000 complaints had flooded Utah officials, as the proposition for the oil drilling was met with strong

²⁰ Dia Art Foundation, "Dia Art Foundation Announces Collaboration with the Great Salt Lake Institute and the Utah Museum of Fine Arts," accessed March 19, 2025, <https://www.diaart.org/about/press/dia-art-foundation-announces-collaboration-with-the-great-salt-lake-institute-and-the-utah-museum-of-fine-arts/type/text>.

²¹ Artforum, "The Future of *Spiral Jetty*," *Artforum*, accessed March 19, 2025, <https://www.artforum.com/columns/the-future-of-spiral-jetty-187839/>.

resistance from environmentalists and land-use activities. The emotional public outcry caused the state to halt their project as a whole as in one statement written to government officials declared, “The project as a whole violated terms set in the state’s own legislation requiring that proposed uses of its sovereign lands not compromise public trust obligations to protect its navigation, fish and wildlife habitat, aquatic beauty, public recreation, and water quality”²². The presence of *Spiral Jetty* itself is a testament to the dynamic relationship between human intervention and nature. Its presence has redefined the role of land art, drawing all types of people - visitors, scholars, artists, environmentalists - and not just acts as an artwork, but as a living sentient entity that is deeply connected with the region’s ecological and industrial history.

Environmental art is an experimental practice, and this exploration of innovation is the driving force of ‘Avant-garde art’. Land art and avant-garde art share an intimate relationship with each other, as both continue to foster each other’s ideologies and challenge traditional boundaries of art. *Spiral Jetty* embodies this intersection, as it merges these principles by transforming a natural landscape into a living artwork. In an interview with Mel Chin, another prominent land artist, he is asked the question, “When is it legitimate or necessary to be silent as an artist?” to which Chin responds with, “Silence is death, but if it’s only noise that we make, that can also lead to an early grave”²³. This affirmation exemplifies the contemporary discourse and struggles of the balance artists must learn to grasp - finding and balancing a creative narrative between impactful expression and meaningless output. This view suggests that creating art without purpose or substance can be equally destructive as being disengaged with critical issues in contemporary culture, such as reducing the value and impact on societal and ecological

²² Artforum, "The Future of *Spiral Jetty*," *Artforum*, accessed March 19, 2025, <https://www.artforum.com/columns/the-future-of-spiral-jetty-187839/>.

²³ Hecker, Sharon, and Silvia Bottinelli. *Lead in modern and Contemporary Art*. London, UK: Bloomsbury Visual Arts, 2021.

concerns. *Spiral Jetty*, upholds the notion that art can and must transcend mere commentary through visual language and become more of an active tool for engagement between creators and consumers. Change is inevitable regardless of intention because conditions are constantly shifting, which *Spiral Jetty* seeks to celebrate.

Currently, the Geffen Contemporary at MOCA in Los Angeles has an Olafur Eliasson exhibition (*OPEN*) on display - offering a highly immersive experience for its viewers (Figure 11). This installation showcases the importance of experimental art just like Robert Smithson's, *Spiral Jetty* (1970). The exhibition's main medium is lighting and reflection, as Eliasson puts on display his experimentation with mirrors, projection and perspective. One of the projection works invites viewers to the back, where one can first-hand directly observe and witness how Eliasson constructed an intricate formula leading to his final lighting display (Figure 12).



Figure 11.
Olafur Eliasson, *Open* exhibition at the MOCA Geffen in LA

This experience unveils the notion of why experimental art is so crucial, as rather than gatekeeping the 'behind the scenes' and creative process, it invites viewers to interact with it - allowing them to experience the craftsmanship and artistry of the conceptualized composition.

Eliasson creates a layer of transparency that demystifies the production and viewing of art as it has been traditionally known - encouraging active participation rather than passive observation.



Figure 12.
Olafur Eliasson, *Pluriverse Assembly* (2021)

‘Traditional art’ in terms of what we know and study in art history often prioritizes the final piece as a singular, complete object to be observed from a distance, without much insight into the artist’s process. Many institutional spaces across the globe such as museums and educational centers often and mostly display historical works of art that could only be achieved through extreme financial privilege or commissioned by royalty, making it inaccessible to ‘common people’. But as time moved on, so did the collective thinking of humans’ relationship to art - taking on a more autonomous approach. There can be a sense of depersonalization when one is viewing a grand painting created by a famous artist in a confined and hyper-curated space, creating a sense of separation between the viewer and the work - where the art feels distant - both physically and conceptually. Experimental art carries a different essence than traditional work, as it is made with the integration of intentionality and a desire to tell an artist's truth with a no

regard filter for external validation. The experience of experimental art is individual but collective, inviting everyone to create but to expand on their own true vision. That is one of the many beauty's of people becoming more aware of their own autonomy in a manufactured contemporary culture. Society is currently witnessing a different realm of expression by interacting with these experimental and avant-garde installations, causing more and more individuals to collectively add to the multi-dimensional narrative of artistic worldbuilding.

A topic that has been debated, discussed and dissected by art historians is "What makes an artist great?". What differentiates an artist that makes a fleeting impression to one that carries on a cultural legacy? With such an intricate topic, there's not just one level to consider but more worlds that are deeply hidden behind today's manufactured culture. Pieces that are displayed in refined institutions like galleries or museums often carry a certain prestige, but does that alone define greatness? Or is it the artist's ability to resonate with people across time and space, to speak to something innately human? What makes an artist "great" is their ability to push boundaries, and learning how to be okay with being vulnerable and uncomfortable outside their comfort zone. How can one keep on unlocking new levels if they are constricted to one form of singular reality? These great artists have mastered the practice of pushing past the staticness that stagnant art puts out, finding a zone of emotional equilibrium in order to enter a flow state that allows them to explore a new daunting world with ease. It is nerve wracking with the potential idea of failing, but that concept of failure is only a tool to realize what an artist really intends to seek, and that's the rhythm of finding drive and passion for contemporary works of experimental art such as Robert Smithson's, *Spiral Jetty*. Through Smithson's experimentation, willingness to fail, and vulnerability, he was able to establish himself as a key figure in Land Art, leaving a

lasting legacy that still continues to spark conversations about the intersection of art, ecological crises and environmental concerns.

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