Tracing the Conceptual Lineage from Land Art to Landscape Architecture

Land art of the late 1960s and early 70s introduced concepts of entropy, materiality, monumentality, phenomenology and landscape reclamation, which reshaped perceptions of the landscape and ecological design. However, there is a perceived distinction between land art and landscape architecture. This study asks how conceptual parallels between land art and contemporary landscape architecture show an indirect lineage of ideas operating through discourse, representation, and design practice. This research aims to define a conceptual lineage, as a network of actors (sites, materials, concepts, artists, representational styles, theoretical texts), circulating between land art and contemporary landscape architecture. A mixed-methods approach combines comparative case studies of land art and landscape architecture projects with a questionnaire sent to leading landscape architects. Findings show parallels in materiality, site specificity, entropy and experiential landscapes. Adopting these land art principles can inform sustainable, experimental ecological design in contemporary practice.

Keywords: *experimental design, site-specificity, design lineage, materiality, experience*

Introduction and Background

Land Art emerged in the late 1960s and early 1970s in the United States, as artists began to move their practices beyond the conventional gallery space. These artists used the land and earth as their medium, shifting their art outdoors. Key artists such as Robert Smithson, Nancy Holt, Michael Heizer and Walter De Maria created large-scale installations and remote earthworks to explore themes of entropy, temporality, materiality, site-specificity and perception. Land art was tied to the socio-political and environmental concerns of its time, arising from awareness of the ecological impact of industrialization and dissatisfaction with the commodification of art (Boettger, 2002). Land art's reclamation of desolate sites offered new forms of meaning, critically addressing environmental damage and industrial disturbance. Robert Smithson described how land art can bring "visual focus to the site and draw attention to the surrounding reclamation work" (Beardsley,1998, p. 23).

These land art precedents are correlated with contemporary landscape architecture, which often engages with post-industrial and ecologically damaged sites. Yet landscape architecture operates within a more formalized and regulated professional framework, guided by licensure, policy and standards set out by representative bodies such as the Ontario Association of Landscape Architects (OALA) and the American Society of Landscape Architects (ASLA). This

professional framework defines the scope of practice, responsibilities and ensures professional accountability and safety, but can also operate as "professional frames which limit the extent to which landscape architecture can experiment, evolve or be creative" (Selanon, 2019, p. 279).

Research Problem

The tension between the regulated practice of landscape architecture and the unregulated and experimental projects of land art creates a unique opportunity to examine the relationship between the two and map the ways that conceptual ideas from land art can be and have been valuable to the contemporary practice of landscape architecture. Meyer (2004) describes a split between art and landscape architecture, which "the art of making the landscape visible, beautiful and memorable had been made subservient to function" (p. 4).

A research question has been developed to help illustrate the research goal, it asks: How do conceptual parallels between land art and contemporary landscape architecture show an indirect lineage of ideas operating through discourse, representation, and design practice?

Research Goal

This research question asks whether a network of conceptual ideas among land artists of the 1960s-70s has indirectly influenced contemporary landscape architects in their conceptual and aesthetic approaches to landscape. This thesis argues that many of these experimental ideas were later absorbed into landscape architecture, where they became operationalized through professional practice, especially in large-scale, post-industrial, and infrastructural landscapes. The principles of materiality, scale, time, change, and entropy explored by land artists such as Robert Smithson and Nancy Holt have circulated into contemporary discourse, informing the design thinking of award-winning landscape architects like James Corner and Michael Van Valkenburgh, suggesting an indirect lineage or network of ideas connecting the two professions.

Objectives

Some research objectives included the following:

- Establish the conceptual foundations of land art to examine key ideas developed in the 1960s and 70s by land artists, such as entropy, site-

specificity, temporality, and scale, through theoretical and historical literature.

- Identify parallels in concepts and design approaches between land art projects and contemporary landscape architecture projects.
- Compare and analyze the transformation of ideas across disciplines, i.e. how land art concepts have been adapted and reinterpreted in landscape architecture practice.
- Examine key contemporary landscape architects' thoughts on design thinking and how land art is perceived, referenced or embedded within professional practice.
- Reframe "influence" through a theoretical lens, as a network of actors (i.e. Actor-Network Theory) shaping design thinking over time.
- Position this conceptual lineage as significant for contemporary landscape architecture practice today. To recognize this lineage is to advance experimental, creative and ecologically driven designs.

Literature Review

A literature review was conducted to strengthen the research approach by integrating theoretical and practical applications in land art and landscape architecture. The objective is to trace a lineage of conceptual ideas through discourse, documentation of works and practice of contemporary landscape architects. This literature review maps the conceptual lineage from the late 1960s to the 1970s, land art to contemporary landscape architecture, using environmental aesthetics and Actor-Network Theory as theoretical lenses. The literature review reveals a gap: a lack of comparative, side-by-side project analysis investigating how concepts have translated over time and through which avenues. This gap will help inform the case study analysis in Chapter 4.

Environmental Aesthetics Theory

Environmental aesthetics rooted itself in eighteenth- and nineteenth-century European and North American thought on aesthetic interests in the landscape and one's natural surroundings, with key ideas including the sublime, the picturesque, and environmental positivism. The theory holds that environmental aesthetic appreciation involves both cognitive dimensions (natural history and processes are essential to appreciating nature) and non-cognitive dimensions (phenomenological approaches, immersion, multi-sensory perceptions, emotions, etc.) (Defrančeski, 2022).

A deep-rooted theme in environmental aesthetics, upheld in landscape architecture practice, is the connection between aesthetic experience and ecology (Parsons & Carlson, 2024). In addition to connecting aesthetic experience with notions of ecology, environmental aesthetics also connects with the concerns of environmental ethics, such as protecting the environment from human destruction and preserving nature's beauty or aesthetic value (Parsons & Carlson, 2024). Environmental aesthetics offers a theoretical lens for investigating the parallels between land art and landscape architecture in this research, by foregrounding how human perceptions, sensory engagement and ecological context shape natural and designed environments.

Actor-Network Theory

Developed by Bruno Latour (2005), the Actor Network Theory or ANT, is described as "an actor-network is what is made to act by a large star-shaped web of mediators flowing in and out of it. It is made to exist by its many ties: attachments are first, actors are second" (p. 217). Applying Latour's views to the transmission of ideas and forms in land art and landscape architecture in this research suggests that specific projects or designs within these two disciplines are not singular creations but actor-networks assembled through a star-shaped web of representatives.

This theory explains that actors, as human or non-human, establish a network through transmission and connection. In this sense, an "actor" is any entity, individual or concept that modifies a state of affairs (Latour, 2005). The "actors" in this research are human and non-human entities, such as Robert Smithson or Nancy Holt as people or groups, and non-human actors, such as a land art project itself, a design tool such as aerial documentation, or an abstract concept such as entropy or site-specificity. The Actor-Network Theory (ANT) provides a powerful lens for explaining how land artists and their works, as actors, actively transformed the network of contemporary landscape architecture. Rather than a simple story of influence, using ANT frames this research as a dynamic process of connection and transformation (Allen, 2011).

Tietjen (2018) explains how ANT can be useful in understanding the landscape. ANT can provide a relational understanding of site, context and scale, allowing us to recognize a site or project as "dynamic connections between human and non-human actors: people, their activities and desires, built structures, landscape features, climatic conditions, etc. mutually affect each other by interaction." (p. 14). The ANT theory shows that historical influence is not a simple linear inheritance but a dynamic network of ideas, materials, and actors that have been translated, amplified, and recontextualized from land art in the 1960s into contemporary landscape architecture practice.

Historical Context of Land Art (1960s-1970s)

Emerging in the late 1960s and early 1970s, the land art movement was a radical artistic practice that rejected the commercialization of art in the gallery setting and shifted its artwork into the natural landscape. The movement coincided with intense social, political and environmental change, including the first Earth Day in 1970, rising ecological awareness and protests against the Vietnam War (Culbert, 2020; Meyer, 2004).

Key land artists such as Robert Smithson, Nancy Holt, Walter De Maria, Michael Heizer, Dennis Oppenheim, and Mary Miss worked directly with the earth, treating the landscape as both a medium and a site. These artists deliberately chose remote, barren, post-industrial sites to create monumental, site-specific installations, subsequently underlining the experience and perception of the work. The central concepts explored in these works included entropy, materiality, scale, phenomenology, and a desire for creative documentation. Land art's focus on sensory engagement was later adopted by landscape architecture as a concern with user experience, perception, and value in public spaces.

Synthesis of Art, Science and Ecology

Land art fundamentally existed as art on the land, not as landscape design; projects were recognized more for their artistic qualities than for their attention to sustainability or ecological succession. Meyer (2004) discussed the history of integrating sustainability into design in the 1980s, when designers and educators, such as Catherine Howett, Michael Hough, Anne W. Spirn, Michael Van Valkenburgh, and George Hargreaves, were working to achieve this synthesis of art, science, aesthetics, and environmentalism. She argues that this cultural shift in landscape architecture is less focused than it was in the 1980s, signaling a growing integration of art, science and environmentalism in today's practice. Corner (2014) refers to the 1970s, recognizing the enormous impact of 1970s land art as a catalytic moment for landscape's recovery and for bridging its instrumental and expressive potentials.

Corner (2014), Gustafson (2017), Weilacher (2010), and Meyer (2004) similarly identified an overlap among art, science, and ecology in land art and landscape architecture.

Differentiation between Land Art and Landscape Architecture

The most significant difference between land art and landscape architecture lies in the responsibilities expected of each practice. Land art is classified as a reaction against commercialized art in galleries; it focuses more on the artistic concept and

the canvas or place it occupies, compared to landscape architects, who are faced with a full panoply of factors (Baird, 2010).

Udo Weilacher (2010) highlights the differences between land art and landscape architecture, noting that landscape architecture places greater emphasis on ethics and responsibility than on aesthetics. He talks about the change in thinking that has occurred on the intersection of art and landscape architecture, suggesting that "Landscape architecture has regained creative freedom" (Weilacher, 2010, p. 4).

Despite a discipline separation regarding policy, licensing and governing bodies, the literature identifies significant areas where land art and landscape architecture share concepts and goals, for example, Selanon (2019) writes: "Relevance of the environment art upon landscape architectural works seems to be obvious" (p. 80).

Anthology of Land Art Concepts

Materiality

A highly important theme across the literature is materiality and its significance to both land art artists and landscape architects. The nature of materials in land art projects is very significant; it is a means of conveying inherent meanings and its own history and mythology" (Weilacher, 1996, p. 14). Michael Van Valkenburg discusses materiality and his inspiration for it through Robert Rausenburg (Isabella Stewart Gardner Museum & Van Valkenburgh, 2015). Robert Smithson's chapter of his Collected Writings, Spiral Jetty, goes on to explain in detail the materiality of his earthwork down to the method of transporting materials, sourcing materials, the colors, biology of the site, meaning of materials, etc. (Smithson, 1996).

Site Specificity and Scale

Site specificity and scale are foundational concepts that define the land art movement. Site specificity is the theoretical concept that an artwork is inseparable from its location; it is an integral component of the artwork (Hogue, 2004). Negrete (2024) stresses the importance of site and scale for some land art projects. She uses Robert Smithson's Spiral Jetty in Great Salt Lake, Utah and Walter de Maria's Lightning Field in Quemado, New Mexico, as examples. She explains that the site's qualities were vast, isolated, and undiscovered, and that it lacked basic provisions and services for the area when it was created. Negrete (2024) states that "the remoteness and the unpopulated state of these places are as essential to the works' full sensorial effect as their conservation" (p. 1431). Robert Smithson wanted to expose the site, not impose on it (Smithson, 1996).

Landscape architecture discourse explores these notions of site specificity, particularly in the design of Byxbee Park by George Hargreaves Associates. The landscape architect's intention for approaching the site, a former landfill, was to look at the generative capacity of the site to inform the landscape's representational content, while simultaneously addressing its temporal nature (Corner, 2014).

Time, Change and Entropy

Entropy is defined as the inevitable movement from order to disorder. Robert Smithson has researched entropy through his land art projects. Smithson displays entropy as a central theoretical concept in his work. Spiral Jetty by Robert Smithson is a key example of the intentional deployment of entropy in land art projects. Smithson's Spiral Jetty is an exploration of environmental time, as he discusses in an interview with Gregoire Muller in his collected writings. He mentions the constant state of flux Spiral Jetty is in, describing how high water levels can completely submerge it at times, and, conversely, how there can be so little water that all one can see is huge formations of salt crystals on the surface (Smithson, 1996). Smithson (1996) goes on to state that he is "interested in collaborating with entropy" (p.256).

The concept of time, change, and entropy has inspired James Corner to name a chapter in Landscape Urbanism, "Terra Fluxus." Corner (1996) describes the city and landscape in a constant state of flux, where one should embrace "open-endedness over time" (p.10) and that "design practices that are contextual responsive, temporal and open-ended, adaptive and flexible, and ecologically strategic do not imply that formal, material precision is irrelevant" (p. 27). James Corner talks about the importance of time in his planning process, which he calls the "plotting" process, in which he considers time and its evolution as a step in his design process. The steps he outlines are plotting the land, the ground that the site is on. Next, he creates the plotting map or plan. Thirdly, he constructs a narrative or time series as an unfolding plot. This frames the design process itself as an act that unfolds over time and sets a future trajectory, rather than being a singular, static creative work (Corner, 1996).

The Lineage of Design Thinking

The lineage of design thinking from land art to contemporary landscape architecture appears in the literature through themes of conceptual traits and discourse citations. Baird (2010) claims that the impact of land art and environmental artists on the profession of landscape architecture is evident, influenced by the strong formal gestures on the land and the conceptual ideas and writings of notable land artists such as Robert Smithson, Michael Heizer, Walter De

Maria, Nancy Holt, and others. Beardsley (1998) states that the works of George Hargreaves are associated with those of several environmental artists, such as Robert Smithson and Walter De Maria. The idea of presenting nature through art, as Robert Smithson did in Spiral Jetty, was referenced in Hargreave's design for Guadalupe Riber in San Jose, California (Weilacher, 1996).

The land art movement provided a conceptual revitalization for the professional split between art and ecological science (Meyer, 2004). The influence was mainly conceptual, introducing a new design language that emphasizes materiality, transience of works and process-based, open-ended designs to bridge artistic expression and ecological values. See Figure 1.

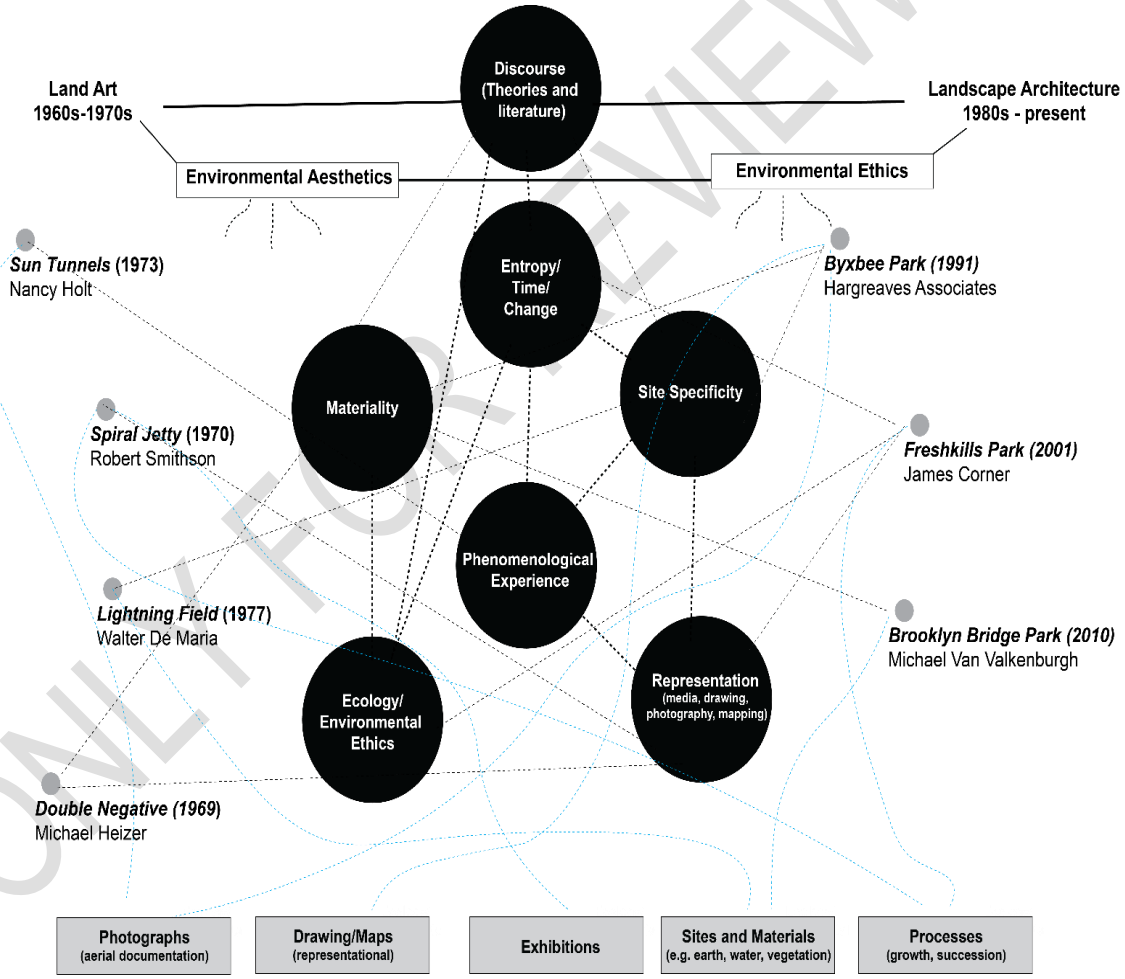


Figure 1. *A network diagram of actors (conceptual ideas, artists, landscape architects, theories, representational methods)*
Source: First Author

This literature provides contextual literature relating to land art concepts, projects and contemporary landscape architecture discourse. Shared themes between land art and landscape architecture discourse emerge through the handling of entropy, materiality, conceptual narratives, and site specificity.

Understanding how concepts and ideas from land art have translated into contemporary landscape architecture involves understanding Latour's theory of actor-network transmission. Latour (2005) states that "as soon as you notice that each site has to pay the connection with another site through some displacement, then the notion of form takes a very concrete and practical sense: a form is simply something which allows something else to be transported from one site to another" (p. 223). For example, the design, form and concept of a land art or landscape architecture project is not just an idea transmitted from an artist's mind onto the land; it is made possible by a network of attachments including historical and theoretical literature, discourse on environmental aesthetics and ethics, magazine articles, photographic documentation, competition design panels, etc.

Table 1 organizes key authors and summarizes the main argument within this literature review. The authors are ordered chronologically to illustrate the progression of arguments.

Table 1. *Literature review table, highlighting key arguments*

Author	Theoretical Context	Key Argument
Beardsley (1998)	Art History	Identifies relationship between land artists and landscape architects, (e.g. Smithson →Hargreaves)
Meyer (2004)	Landscape Theory	Integration of art, ecology, and design.
Latour (2005)	Actor-Network Theory	Ideas circulate through a network of actors
Weilacher (2010)	Landscape Architecture/Art Theory	Artistic expression is tied to ethical responsibility. Shared concepts in land art and landscape architecture, but a separation in responsibility and practice.
Baird (2010)	Landscape Criticism	Contemporary Influence appears in formal and conceptual design approaches
Corner (2014)	Landscape Architecture Theory	Land art as a catalyst for expressive and ecological landscape thinking. Conceptual lineage influences landscape urbanism
Tietjen (2018)	Landscape Theory	Landscapes as relational systems in a network
Selanon (2019)	Academic Research	Overlap in form and styles between land art and landscape architecture
Defrančeski (2022)	Environmental Aesthetics	Land art and environmental aesthetics share a fundamental idea
Parsons & Carlson (2024)	Environmental Aesthetics	Aesthetic experience is tied to ecology and perception

Source: First Author

Methodology

Overview

The research methods used to answer the research question and meet the objectives via a mixed method approach consisting of 2 parts: 1) a comparative case study analysis, and 2) a questionnaire for contemporary landscape architects. This research and subsequent analysis will be qualitative, exploring a lineage of ideas, theories and landscape architects' responses.

The first method will be a series of case studies of land art and landscape architecture projects to identify parallels in concepts and design approaches between the two. The second method will be a questionnaire distributed to practicing landscape architects. The objective of the questionnaire is to examine key contemporary landscape architects' thoughts on design thinking and how land art is perceived, referenced or embedded within professional practice.

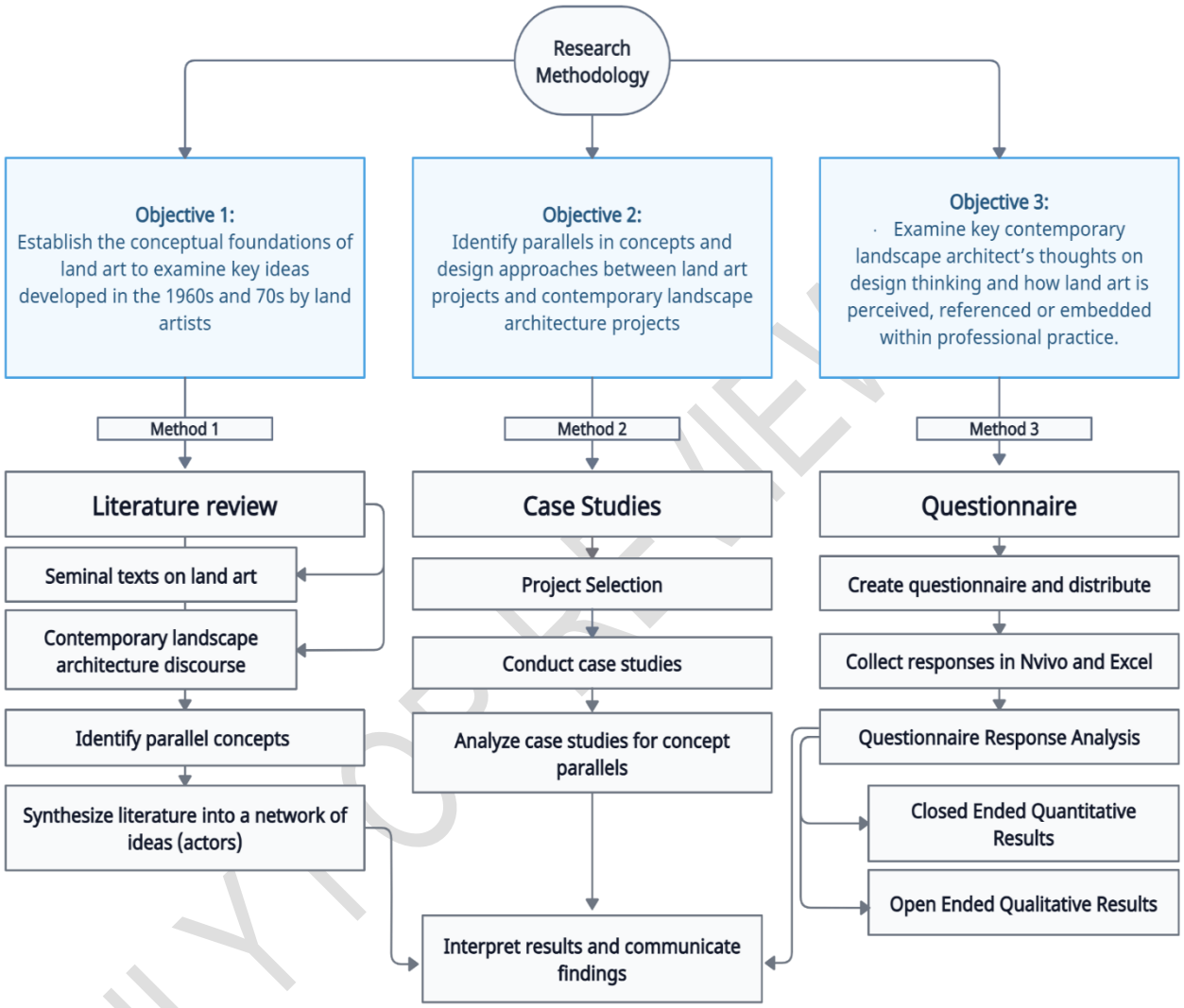


Figure 2. *A flow chart summarizing the research methodology corresponding to objectives*
Source: First Author

This flowchart outlines the development of research methodology, followed by the selection of appropriate research methods and workflow (Figure 2).

Case Study Method Overview

The comparative case study method examines selected projects by contemporary landscape architects alongside selected land art projects to identify how similar design approaches and principles are expressed in current practice through a network of design thinking.

Case Studies were evaluated based on site context, materiality, temporal change, user experience and conceptual narrative. The case studies are then evaluated through analytical comparison. 2 sets of projects (1 on land art and 1 on contemporary landscape architecture) are arranged side by side to map how each project exemplifies topics such as entropy, materiality, site specificity, and experience. How these concepts have been translated over time between the 2 selected projects will be organized using a standard template, with representation, systems translation, and built manifestation as categories of evaluation.

Questionnaire Method Overview

A questionnaire will gather personal accounts of design thinking in professional practice from key landscape architects. The sampling will be 8 established landscape architects or associates, whose work demonstrated conceptual resonance with land art (e.g. working with large scale ecological installations, landforms, reclaimed sites, or earth cutting/moving). The questionnaire consists of 7 Likert-scale questions and 2 short open-ended questions. The interviews will be short, closed and open ended, providing empirical data that suggests a lineage in design thinking. The questionnaire was created in Qualtrics.

The questionnaire aims to assess whether practicing landscape architects hold a positive, negative, or neutral position regarding land art as part of their design thinking. The Likert scale questions gather information on: whether they reference land art principles or precedents in their teaching or lectures, whether they consider temporal changes in design, the impact of land art on their design thinking, etc. The open-ended questions seek personal accounts of moments when a Land Art project meaningfully influenced their approach to a site.

The questionnaire was sent to 8 contemporary landscape architects via email. The selected landscape architects are widely recognized and noteworthy contributors to the field.

Analysis and Critical Reflection: Case Studies

These case studies from the period of land art have been selected based on popularity when searching for land art projects, a large number of writings and photographs of the work, and the time frame of their completion. Significant and accessible body of written and visual material already published on the project and artists.

The case studies of projects by contemporary landscape architects have been selected for their popularity and influence in the field of Landscape Architecture. Criteria such as general recognizability, award winners, lecture talks, collected writings, large community projects, environmental and restoration designs have been considered.

These case studies are organized firstly by land art projects by notable land artists Robert Smithson, Nancy Holt, Walter De Maria and Michael Heizer, followed by 4 landscape architecture projects by James Corner, Michael Van Valkenburgh, George Hargreaves, and Kathryn Gustafson. Each project was analyzed for materiality, concept, site context, environmental considerations, social and community engagement and aesthetic qualities. This criterion is used to map connections between land art projects and landscape architecture projects. Following the case studies will be a comparative analysis of 2 case study sets that exemplify similar attributes and parallels.

Figure 3. *Case Study 1- Robert Smithson- Spiral Jetty*

Robert Smithson – Spiral Jetty

Artist Profile

Robert Smithson (1938-1973)

Profession
Artist/Land Artist

Project

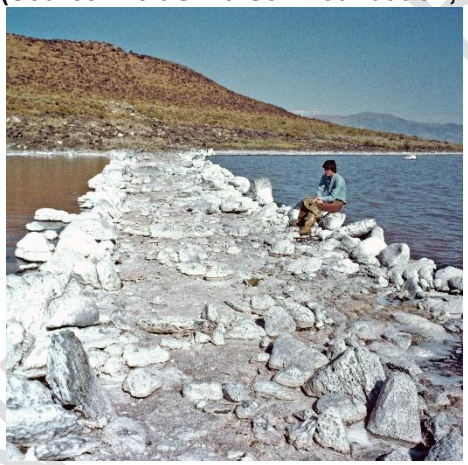
Location
Great Salt Lake, Utah

Size
457.2m L x 4.6m W

Type
Land Art / Earth Work

Date
Completed 1970

Robert Smithson's Spiral Jetty. (Source: Holt/Smithson Foundation, n.d.)



Robert Smithson sitting on Spiral Jetty. (Source: Holt/Smithson Foundation, n.d.)

Characteristics

Material: Mud, precipitated salt crystals, rocks, water
Concept: A testimony to the artist's fascination with entropy, time and scale

Site Context: Site-specific, barren and unpopulated site, at Utah's Great Salt Lake shoreline

Temporal Changes: Continuous change from nature, industry and time, the spiral would emerge or be submerged depending on water level fluctuations

User Experience: The experience is tied to change, meditation and perception. The work may look completely different at different times, making entropy visible.

Figure 4. *Case Study 2 - Nancy Holt- Sun Tunnels*

Nancy Holt - Sun Tunnels

Artist Profile

Nancy Holt
(1938-2014)

Profession
Artist/Land Artist

Project

Location
Great Basin Desert, Utah

Size
Diagonal length: 26.2m

Type
Land Art / Earth Work

Date
1973-1976

Sun Tunnels.
(Source: Holt/Smithson Foundation, n.d.)

Sun Tunnels at sunset.
(Source: Holt/Smithson Foundation, n.d.)

Characteristics

Material: Abandoned concrete drainpipes, steel, and earth.

Concept: An exploration in phenomenology, perception, and cosmic alignment. Tunnel sizing was inspired by four-star constellations (Dravo, Perseus, Columba and Capricorn) (Negrete, 2024).

Site Context: Barren and vast landscape in Utah. Centralized concrete pipes are used as sighting devices for mountains around the lake basin.

Temporal Changes: Tunnels are aligned with the angles of the rising and setting sun. On the days of the solstices, the sun becomes centered through the tunnels. Echo and temperature change inside the tunnels.

User Experience: To get close to the installation and witness the sun's alignment through the tunnels.

Figure 5. *Case Study 3- Walter de Maria- Lightning Field*

Walter De Maria – Lightning Field

Artist Profile

Walter De Maria (1935-2013)

Profession
Artist/Land Artist

Project

Location
Quemado, New Mexico

Size
1.6km x 1km

Type
Land Art / Earth Work

Date
Completed 1977

Walter De Maria's Lightning Field. (Source: Dia Art Foundation, n.d.)

Lightning Field at night. (Source: Dia Art Foundation, n.d.)

Characteristics

Material: Stainless steel poles (20ft tall and 2in diameter)

Concept: Celebrating natural phenomena and recognizing the power of lightning. 400 polished stainless steel poles installed in a grid formation.

Site Context: Flat, semi-dry basin surrounded by mountains, away from human population. The region has a relatively high incidence of lightning (Beardsley, 1998).

Temporal Changes: Visitors are encouraged to spend as much time as possible in the field to experience both sunrise and sunset on the poles, as their reflective qualities make them appear almost invisible or fully enhanced by the sun.

User Experience: The work is meant to be visited for extended periods. Photography restriction in effect, Maria wanted to control the way the site was documented, as it was not supposed to be experienced in an instant moment.

Figure 6. *Case Study 4- Michael Heizer- Double Negative*

Michael Heizer – Double Negative

Artist Profile

Michael Heizer
(1944 – Present)

Profession
Artist/Land Artist

Project

Location
Moapa Valley,
Overton, Nevada

Size
450m x 9m x 15m

Type
Land Art / Earth Work

Date
Completed 1969

Michael Heizer's Double Negative. (Source: Gagosian Quarterly, 2024)

Aerial view of Double Negative. (Source: Google Earth)

Characteristics

Material: Earth, rhyolite and sandstone and the removal of earth: 240,000 tons

Concept: A subtractive sculpture of 2 trenches defined by the negative space it creates. To test the physical limits of materials (O'Dell, 2022).

Site Context: Harsh desert terrain, mesa ridges overlooking the valley

Temporal Changes: Desert conditions have eroded the work so that it might return to its natural state.

User Experience: Monumental and expansive, must be experienced close up and in person.

Figure 7. *Case Study 5 - James Corner- Freshkills Park*

James Corner Field Operations – Freshkills Park

Artist Profile

James Corner
(1961 – Present)

Profession
Landscape Architect

Project

Location
Staten Island, New York

Size
8.9km^2

Type
Urban Park

Date
2001 - Ongoing

Freshkills Park and skyline views. (Source: Freshkills Park, 2024)

Freshkills Park east mound landfill capping. (Source: Socialink, 2010)

Characteristics

Material: Highly engineered landfill caps

Concept: Transformation of an existing landfill (Fresh Kills Landfill) into a “Lifescape”, a design concept involving habitat, program and circulation (Hutchinson, 2017).

Site Context: The park sits on top of a historic landfill on Staten Island in New York.

Temporal Changes: Ecological Phasing over 30 years, allowing time for natural processes to occur and for the site to become richer in habitat, vegetation and recreation.

User Experience: Highly programmed public park, with views of the New York City skyline.

Figure 8. *Case Study 6 - Michael Van Valkenburgh- Brooklyn Bridge Park*

Michael Van Valkenburgh – Brooklyn Bridge Park

Artist Profile

Michael Van Valkenburgh (1951 – Present)

Profession
Landscape Architect

Project

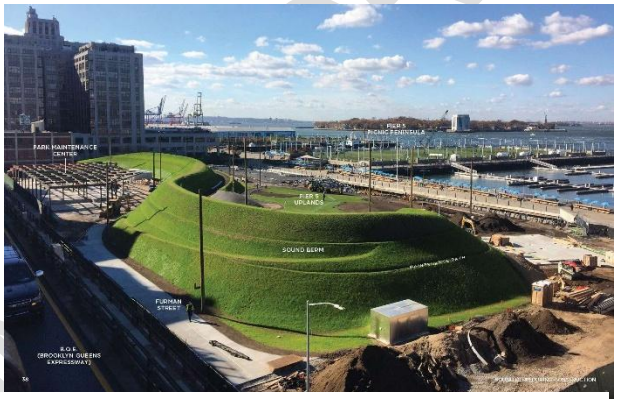
Location
East River, New York City

Size
2.1km

Type
Public Waterfront Landscape

Date
Completed 2021

Brooklyn Bridge Park, Piers 2-6. (Source: Michael Van Valkenburgh Associates Inc, n.d.)



Brooklyn Bridge Park sound berm. (Source: Michael Van Valkenburgh Associates Inc, n.d.)

Characteristics

Material: Former marine terminal influences materiality: reclaimed granite, salvaged stones from, and yellow pine benches

Concept: Earth moving to create new landforms supported on existing piers. The park preserves the historic value of the working port and harbor.

Site Context: Located in New York City on a public waterfront and former marine terminal.

Temporal Changes: Over 2 decades, the park has transformed from industrial infrastructure to an evolving marine habitat, with a functioning salt marsh and a variety of fish and birds, remaking parts of the prior natural landscape (Isabella Stewart Gardner Museum & Van Valkenburgh, 2015).

			User Experience: Public space offering panoramic views, connecting users to the waterfront, and offering a place of retreat, using a built sound berm to lessen the noise of the city.

Figure 9. *Case Study 7 - Hargreaves Associates- Byxbee Landfill Park*

George Hargreaves & [illegible]	**Artist Profile** George Hargreaves (1952 – Present) **Profession** Landscape Architect **Project** **Location** Palo Alto, California	 **Byxbee Park.** **(Source: Hargreaves Jones, 2020)**	**Characteristics** **Material:** telephone poles, concrete, steel **Concept:** Designed as a land art-inspired, large-scale earthwork where sculptural elements (poles, oyster-shell paths, concrete barriers, methane flame) make the site's history and processes legible (City of Palo Alto, Public Art Master Plan, 2017). **Site Context:** The park sits on a remediated landfill site. Site design draws inspiration from the unique

	Size 0.2km^2 **Type** Public Park **Date** Completed 1991	 **Byxbee Park pole field.** **(Source: Hargreaves Jones, 2020)**	place characteristics: landfill, slough, marsh, wind and sky **Temporal Changes:** Hargreaves let nature manage many of the details, letting vegetation, people and water wash over the site over time (Beardsley, 1998). **User Experience:** a recreational park for walking, biking, and bird watching. Large scale art installations follow the topography of the site, offering expansive views of the bay

Figure 10. *Case Study 8 –Kathryn Gustafson- Princess Diana Memorial*

Kathryn Gustafson – Princess Diana Memorial

Artist Profile

Kathryn Gustafson (1951 – Present)

Profession
Landscape Architect

Project

Location
London, UK

Size
5600m^2

Type
Public Park

Date
Completed 2004

Aerial view of Princess Diana Memorial Fountain. (Source: Gustafson Porter + Bowman, n.d.)

Granite fountain at Princess Diana Memorial Park. (Source: Gustafson Porter + Bowman, n.d.)

Characteristics

Material: Interlocking Cornish granite, water, hydraulics

Concept: "Reaching out – letting in" to reflect Princess Diana's inclusivity and openness. The fountain is an anti-monument design, intended for interaction, experience and play.

Site Context: integration with the natural slopes of Hyde Park so that water can flow with gravity

Temporal Changes: The site has undergone retrofits and restrictions due to safety issues and runoff water concerns.

User Experience: Visitors are encouraged to draw close to the water and interact with the looping water course.

Case Study Results

This section will use analytical comparison, across conceptual and visible traits, to identify an exchange and lineage of ideas present across different cases. This section will explore conceptual lineages as shared design logic over time, incorporating a comparison of use on entropy, experience, site specificity, and materiality. The following sections will discuss the concepts of entropy, experience, site specificity, and scale as they migrate from land art discourse into ecological design practices through shifting representations and design translations.

Entropy

Entropy changes meaning across time, media type and discipline. Robert Smithson's Spiral Jetty exhibits entropy by collaborating with decay and change rather than resisting it, with the spiral designed to be submerged, encrusted with salt, and seasonally emerge as lake levels fluctuate.

James Corner's Freshkills Park presents a phased ecological restoration and park development of a former landfill, using capping, soil-building, succession planting, and ongoing monitoring rather than a single finished moment. Freshkills Park was developed to work collaboratively with time and processes for habitat to evolve, plants to grow, and soil to build up, growing richer and more elaborate over a 30-year period (Hutchinson, 2017). Hogue (2004) notes that "Smithson's work was deeply influenced by a sense of time beyond recent occupations and narratives" (p. 59), and that projects such as Freshkills, with the capacity to adapt and transform over extended periods, were as important as the concept behind the project. (Hogue, 2004) Smithson's articulation and visualization of entropy facilitated a design language in which large, disturbed sites can be designed as an evolving time-based system rather than a static form.

Experience

A lineage of phenomenology and land art's concept of experience can be seen from Nancy Holt's Sun Tunnels, which originated as a cosmic alignment and a perceptual experience in the Utah desert, to Kathryn Gustafson's Princess Diana Memorial Park, a sensory and participatory public space in London, UK. Nancy Holt emphasized how experience and perception can alter one's relationship with the environment, using monumental scale to make the individual feel both contained and connected to the vastness of nature. Sun Tunnels exemplified experience as an alignment between body, site, and celestial events: four concrete cylinders orient the viewer to solstice sun and to star constellations drilled through their upper surfaces, so that light, shadow, temperature and sound become primary materials for perception (Negrete, 2024).

Kathryn Gustafson exemplified experience through her concept of "reaching out, letting in", by channeling human interaction and emotion. The oval-shaped park fountain, made of Cornish granite and following the park's rolling topography, is intended to draw people in and encourage visitors to walk along, within and around the fountain (Gustafson, Porter + Bowman, n.d.). These 2 projects highlight a shared concern with how form, light, water, and ground organize embodied experience, mapping a conceptual resonance between Holt's cosmic phenomenology in the desert and Gustafson's urban memorial landscape.

Site-specificity

The concept of site specificity travels from land art to landscape architecture through integration and interventions on the land. Walter De Maria's Lightning Field exemplified this concept, where his grid of stainless-steel poles is inseparable from site conditions like weather and topography, as De Maria states: "The land is not the setting for the work but a park of the work" (De Maria, 1980). This land art project treats the site as part of the project (Hogue, 2004).

This idea undergoes a design translation, evolving to a point where the site is seen as a prospect for intervention (Hogue, 2004). The built manifestation can be seen through Hargreaves Associates' Byxbee Park, a former landfill remediation project in California, featuring a trail network and public art installations. Rather than just occupying a site, the park actively reshapes the landscape by sculpting 60-foot garbage mounds into a series of pleasing hillocks, swales and paths (SS & DL, 1993). By creatively designing from the site's geology, history, and constraints, Byxbee Park becomes a place for infrastructure, ecology, and public art, exemplifying the concept of site into the concept of project.

Materiality

Materiality has been translated by land artists and landscape architects, from a monumental subtractive earth void to a highly programmed and restorative urban park. Michael Heizer's Double Negative highlighted material as the main event of the work, a displacement of the material in which the work exists. Heizer moved 240,000 tons of earth and rock to create 20-ft-deep trenches in the Nevada desert. The concept of moving earth is translated to the reuse and addition of materials in Van Valkenburgh's Brooklyn Bridge Park. The park's constructed landforms required 90,000 cubic yards of salvaged fill material to create the sound berm topography (*Brooklyn Bridge Park: Pier 1 & Pier 3-4 Uplands*, 2024).

Material reuse from New York City infrastructure is a main objective of this design, with reclaimed granite, milled long-leaf yellow pine, and timber creating a unique identity that connects the site to its industrial past (Michael Van

Valkenburgh Associates Inc, n.d.). This land art concept of materiality stages the earth as a powerful medium, and it is translated across disciplines, whether additive or subtractive.

Questionnaire Results

This section presents the findings from the questionnaire circulated to landscape architects to understand how they position land art within their design thinking. The questionnaire results were received at a 50% response rate, from 4 of 8 landscape architects. Rather than treating land art as a direct influence, this section examines how respondents reference land art concepts, projects, and artists in their discourse, and how these references may have been operationalized in design practice. The Likert scale data reveals that respondents are broadly familiar with land art works, with 75% strongly agreeing that they have read about or seen 1960s-70s land art projects, indicating exposure within the profession. Question data regarding whether land art principles or precedents are referenced during the conceptual design phase of a project (25% somewhat agree and 25% strongly agree), illustrating that land art concepts are present but are often implicit rather than clearly expressed in design planning. Similarly, half of the respondents reported using land art precedents in teaching or presentations, indicating that the discourse surrounding land art is present and transmitted in academic and professional contexts. Regarding the perceived impact of land art on design thinking, respondents were evenly split, pointing to a somewhat ambivalent recognition of land art ideas as a factor in professional practice. Finally, half of the respondents agree that land art principles are relevant to the design of community-based public spaces, while the other half remained neutral. This highlights a partial but growing acceptance of land art concepts in the planning of public space projects.

To answer the research question and classify responses, responses were categorized as either suggesting land art as an actor (i.e., having some influence on their design thinking) or not. Open-ended responses from the questionnaire illustrate how conceptual ideas of land art have reached landscape architects. Respondents replied with direct citations of key land artworks, such as Lightning Field by Walter De Maria, Spiral Jetty by Robert Smithson, or Double Negative by Michael Heizer; early exposure through magazines; or passing references to other landscape architects.

Several respondents referenced specific land art projects and writings as shaping their conceptual design thinking. One respondent noted Heizer's Double Negative for "the potential of earthwork to transform even the most monumental of sites with legible intention with the power of removal vs. material addition," and "Smithson's Site/Nonsite for using displacement of site materials to reconceptualize landscape." Another described avidly reading Artforum in the 1970s and being influenced by both the earthworks documented there and the theoretical writing around them.

One Respondent drew on land art to articulate specific representational and conceptual strategies. One framed De Maria's Lightning Field as "a grid waiting for phenomena to complete it," emphasizing intentional arrangement as a means of inviting ongoing processes rather than a fixed, final form.

For several respondents, land art is communicated less as a direct reference and more as something already absorbed into the work of key landscape architects. One respondent replied that "land art came to influence the work of George Hargreaves and Hargreaves Associates directly, who then transformed this art mode into social and ecological landscapes". Another respondent identified Kathryn Gustafson and Herbert Bayer's earthwork-like project in Kent as formative, while questioning whether landscape architecture itself should be considered a form of land art.

These responses describe an indirect lineage in which land art concepts are translated into practice through prominent landscape architects and projects.

Not all respondents identified land art as a strong influence in their design thinking or practice. This pushes the argument that there is an ambivalence about whether land art concepts have made their way into contemporary landscape architecture design thinking. Question 2 of the questionnaire (*Can you describe a moment in your career when a land art project or artist meaningfully influenced how you approached a site? What ideas came forward?)* received a response that "no, unless we include landscape architecture/design as land art…I don't recall being influenced by it in my work (consciously)". The questionnaire reveals both positive references to land art and a lack of references in landscape architecture practice, suggesting an indirect influence and ambivalence about a connection between land art and landscape architecture.

Conclusion

This thesis argues that an indirect design lineage connects the foundational concepts of land art from the 1960s-70s to contemporary landscape architecture practice. The research developed a set of concepts, such as entropy, materiality, site-specificity, and phenomenology, that have been absorbed into landscape architecture practice through a circulating network of ideas. Not necessarily a direct linear influence from one time period to another, but a lineage of conceptual ideas. This study found that the communication of concepts occurs through these actors: theoretical discourse and literature, representation and documentation (e.g., photography, film, media), and design practice (e.g., built manifestations).

By using a mixed-method approach that combined comparative case studies with a questionnaire sent to noteworthy landscape architects, this research established conceptual parallels between the design thinking of land artists and landscape architects. The questionnaire revealed that influence manifests through direct citations of land artists or projects, or through indirect integration in practice.

Comparative case studies connected Robert Smithson's Spiral Jetty with James Corner's Freshkills Park through shared concepts of entropy, as exhibited in the acceptance and celebration of time, change, and process in their work. Michael Heizer's Double Negative parallels Michael Van Valkenburgh's Brooklyn Bridge Park in terms of material strategies of addition and subtraction on massive scales. Nancy Holt's Sun Tunnels and Kathryn Gustafson's Princess Diana Memorial Fountain share a phenomenological approach to experience. What started with cosmic alignment and perception for Nancy Holt was translated by Kathryn Gustafson into an engagement of the body in time and place for a sensory experience. The site-specific designs of Walter De Maria's Lightning Field and Hargreaves Associates' Byxbee Park exhibited parallels in form and concept. Lightning Field's location is highly specific to the design intent, and Byxbee Park sought to highlight the site's natural processes, working with them rather than against them.

Limitations

This research was shaped by several limitations, including the challenge of selecting from numerous projects for comparison, the difficulty of avoiding broad generalizations given limited empirical data, and time constraints. The questionnaire achieved a 50% response rate, which also constrained how widely the findings could be interpreted. In addition to these limitations, the research question had to be refined from its original version, as it initially investigated land art concepts through a more linear model of concept translation, which was limiting for critical analysis. As the literature review developed, it became clear that the relationship was not best understood as a linear concept translation but as a network of concepts moving through discourse, projects and design practices. The questionnaire ultimately reinforced this shift in the research question, showing a mixed and indirect incorporation of land art principles in contemporary design practices.

Synthesizing Art and Landscape Architecture in Practice

The importance of this research for future landscape architecture practice lies in recognizing that an indirect transmission of land art concepts into a field like landscape architecture, which is constrained by regulatory frameworks, can provide insight into how to respond creatively and experimentally to complex ecological sites. By moving beyond simple collaboration and integrating more artistic thinking and interdisciplinary work with artists into practice, landscape architects can achieve more experimental ecological designs. Adopting land art concepts outlined in this thesis, designers can create adaptive ecological designs that don't work against nature, spaces that phenomenologically connect people to the landscape, and site-specific designs that give meaning to and engage the site's surroundings. Land art and landscape architecture may be categorically

different disciplines, but they share this in common: "Both environmental sculpture and landscape architecture can help us decode our multiple, often conflicting attitudes toward nature, reviving old myths when appropriate and shaping new paradigms when necessary." (Beardsley, 1998).

This research can also be tested by considering how landscape architecture can be treated as an active and meaningful part of architectural work, rather than as a residual space around a building. This research has broader significance for landscape architecture, especially in its emphasis on shifting perceptions of what landscape architecture can be through site-specific interventions, experimental ecological design, and the making of invisible environmental processes visible. In this context, geospatial analysis is a useful tool for better understanding ecological patterns, site relationships, and environmental conditions, helping to synthesize landscape architecture values with architectural objectives within a more integrated design environment. This would support more site-specific and sustainable projects, giving the surrounding landscape greater cultural and design significance in relation to the building itself.

References

Allen, C. D. (2011). On Actor-Network Theory and landscape. *Area*, *43*(3), 274–280. https://doi.org/10.1111/j.1475-4762.2011.01026.x

Baird, T. (Ed.). (2010). Environmental art as sustainable design: Mill Creek Canyon earthworks and effigy tumuli sculptures. In *Landscape Imprints* (Second Edition).

Barbara Goldstein Associates, Gail M. Goldman Associates, & City of Palo Alto Staff. (2016). *City of Palo Alto: Public Art Master Plan*. https://www.paloalto.gov/files/assets/public/v/1/community-services/public-art-program/pap-policies-and-docs/public-art-master-plan.pdf

Bartlett, L., & Vavrus, F. (2017). Comparative case studies: an innovative approach. *Nordic Journal of Comparative and International Education (NJCIE)*, *1*(1). https://doi.org/10.7577/njcie.1929

Beardsley, J. (2006). *Earthworks and beyond: Contemporary Art in the Landscape*. Abbeville Publishing Group.

Boettger, S. (2002). *Earthworks: Art and the Landscape of the Sixties*. Univ of California Press.

Brady, E., & Prior, J. (2020). Environmental aesthetics: A synthetic review. *People and Nature*, *2*(2), 254–266. https://doi.org/10.1002/pan3.10089

Brooklyn Bridge Park: Pier 1 & Pier 3-4 Uplands. (2024, December 13). Landscape Performance Series. https://www.landscapeperformance.org/case-study-briefs/brooklyn-bridge-park-pier-1-pier-3-4-uplands

Corner, J. (2006). Terra Fluxus. In C. Waldheim (Ed.), *The Landscape Urbanism Reader* (pp. 21–33). Princeton Architectural Press.

Corner, J. (2014). *The Landscape Imagination: Collected Essays of James Corner 1990-2010*. Princeton Architectural Press.

Culbert, J. (2020). Negative ecology: Robert Smithson's spiral jetty at 50. *Postmodern Culture*, *30*(3). https://doi.org/10.1353/pmc.2020.0011

De Maria, W. (1980). The Lightning Field. *Artforum*, *18*(8), 58.

Defrančeski, J. (2022). Environmental aesthetics and land art. *Pannoniana*, *6*(1), 9–34. https://doi.org/10.32903/p.6.1.1

Dia Art Foundation. (n.d.). *Dia Art Foundation*. https://www.diaart.org/visit/visit-our-locations-sites/walter-de-maria-the-lightning-field

Diana, Princess of Wales Memorial. (n.d.). Gustafson Porter + Bowman. https://www.gp-b.com/diana-princess-of-wales-memorial

Diana, Princess of Wales Memorial Fountain – The Landscape Institute. (n.d.). https://landscapeinstitute.org/case-study/diana_princess_of_wales_memorial_fountain/

Field Operations. (2006). *FreshKills Park: Draft Master Plan*.

Francis, M. & Landscape Architecture Foundation. (1999). A case study method for landscape architecture. In *A Case Study Method for Landscape Architecture* (p. 2). Landscape Architecture Foundation. https://www.lafoundation.org/sites/default/files/2019-01/casestudymethod.pdf

George Hargreaves (1952-). (n.d.). Landscape Architect + Designer Profiles. https://ladprofile.weebly.com/george-hargreaves-1952.html

Hargreaves Jones. (2020, November 24). *Byxbee Park | Hargreaves Jones*. https://www.hargreaves.com/work/byxbee-park

Hargreaves Jones. (2022, October 8). *George Hargreaves | Hargreaves Jones*. https://www.hargreaves.com/people/george-hargreaves

Harold Town. (n.d.). Art Canada Institute. https://www.aci-iac.ca/art-books/harold-town/biography/

Harold Town Conservation Area | Otonabee Conservation. (n.d.). Otonabee Conservation. https://www.otonabeeconservation.com/conservation-areas/harold-town-conservation-area/

Harvard University Graduate School of Design. (2026, April 13). *Chris Reed - Harvard Graduate School of Design*. Harvard Graduate School of Design. https://www.gsd.harvard.edu/person/chris-reed/)

Hewitt, R. R. (Ed.). (2010). CELA 2003 SELECT PAPERS. In *Landscape Imprints* (Second Edition).

Hogue, M. (2004). The Site as Project: Lessons from Land art and Conceptual art. *Journal of Architectural Education*, *57*(3), 54–61. https://www.jstor.org/stable/1425781

Hutchinson, P. (2017). Exploring the Connection between Landscape and Biopolitics: The Story of Freshkills Park. *SHILAP Revista De Lepidopterología*, *17*(1). https://doi.org/10.34900/lr.v17i1.1011

Hutton, J. (2013). Reciprocal landscapes: material portraits in New York City and elsewhere. *Journal of Landscape Architecture*, *8*(1), 40–47. https://doi.org/10.1080/18626033.2013.798922

Isabella Stewart Gardner Museum, & Van Valkenburgh, M. (2015, September 22). *Landscape Lectures: Michael van Valkenburgh* [Video]. YouTube. https://www.youtube.com/watch?v=KAaWGYh7QP8

James Corner, FASLA, PLA — Field Operations. (n.d.). Field Operations. https://www.fieldoperations.net/studio/people/james-corner-fasla-pla

Kindzierski, M. (2015, February 16). *World's largest landfill will soon be NYC's biggest solar plant — KINDO*. KINDO. https://www.kindostudios.com/blog/2015/1/19/worlds-largest-landfill-will-soon-be-nycs-biggest-solar-plant

Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford University Press.

Meyer, E. K. (2008). Sustaining beauty. The performance of appearance. *Journal of Landscape Architecture*, *3*(1), 6–23. https://doi.org/10.1080/18626033.2008.9723392

Michael Heizer: Seventeen Sculptures | Gagosian Quarterly. (2024, December 17). Gagosian. https://gagosian.com/quarterly/2024/11/04/michael-heizer-seventeen-sculptures/

Michael van Valkenburgh Associates Inc. (n.d.). Michael Van Valkenburgh. https://www.mvvainc.com/who-we-are/michael-van-valkenburgh-new

Michael van Valkenburgh Associates Inc. (n.d.). Brooklyn Bridge Park. https://www.mvvainc.com/projects/brooklyn-bridge-park

Negrete, F. (2024). Through Sun Tunnels: radical subjectivity and the radiant drive. *Textual Practice*, *38*(9), 1428–1452. https://doi.org/10.1080/0950236x.2024.2379180

North Park - completed in 2023 and now open - Freshkills Park. (2024, October 21). Freshkills Park. https://freshkillspark.org/design-construction/north-park-phase-1#images-1

Owens, C. (1979). Earthwords. *October 10*, 120. https://doi.org/10.2307/778632

Parsons, G. (2024). Environmental aesthetics. In *The Stanford Encyclopedia of Philosophy*. https://plato.stanford.edu/archives/fall2024/entries/environmental-aesthetics/

Parsons, G., Hettinger, N., & Shapshay, S. (2025). *Routledge Handbook of Nature and Environmental Aesthetics*. https://doi.org/10.4324/9781003302223

reSITE, & Gustafson, K. (2017, October 31). *Kathryn Gustafson on the Art of Landscape Architecture* [Video]. YouTube. https://www.youtube.com/watch?v=jdM9GVHWmfU

Rieple, A., & Van Den Broek, A. (2017). *Using actor-network theory to reveal strategy processes in design firms* (Issue 1, pp. 1373–1390). https://doi.org/10.33114/adim.2017.132

Roberto Rovira. (n.d.). Roberto Rovira. https://www.robertorovira.com/

Rovira, Roberto. (n.d.). https://discovery.fiu.edu/display/person-roviraroberto-j

Selanon, P., Srilertchaipanij, H., & Saleh-Bala, M. (2019). Article Review: The 18th Century Aesthetics and Their Associations with Landscape Architecture and Environmental Art. *Journal of Architectural/Planning Research and Studies (JARS)*, *16*(1), 1–14. https://doi.org/10.56261/jars.v16i1.182957

Shannon Nichol — GGN. (n.d.). GGN. https://www.ggnltd.com/shannon-nichol

Shapiro, G. (2019). Spiral Jetty. *Holt/Smithson Foundation: Scholarly Texts*, *1*. https://holtsmithsonfoundation.org/spiral-jetty

Smithson, R. (1996). *Robert Smithson: The Collected Writings*. Univ of California Press.

Socialink. (2010, November 10). *Construction details on East Mound landfill capping - Freshkills Park*. Freshkills Park. https://freshkillspark.org/blog/construction-details-on-east-mound-landfill-capping

SS, & DL. (1993). Byxbee Park. *Landscape Architecture*, *83*(11), 52–53. http://www.jstor.org/stable/44680671

Team — Stoss. (n.d.). STOSS LANDSCAPE URBANISM. https://www.stoss.net/studio/team

Terrain Work - Theodore Hoerr. (n.d.). Terrain Work. https://www.terrainwork.com/theodore-hoerr

Tietjen, A. (2018). Found in translation: Working with Actor-Network Theory in Design education. *Nordic Journal of Architectural Research*, *30*(1). https://arkitekturforskning.net/na/issue/view/108

Waldheim, C. (2006). *The Landscape Urbanism Reader*. Princeton Architectural Press.

Weilacher, U. (1996). *Between landscape architecture and land art*. Princeton Architectural Press.

Weilacher, U. (2010). New landscape after land art. In *Paesaggi fatti ad arte* (pp. 121–128).

Yin, R. K. (2018). *Case study research and applications: Design and Methods*. SAGE Publications.